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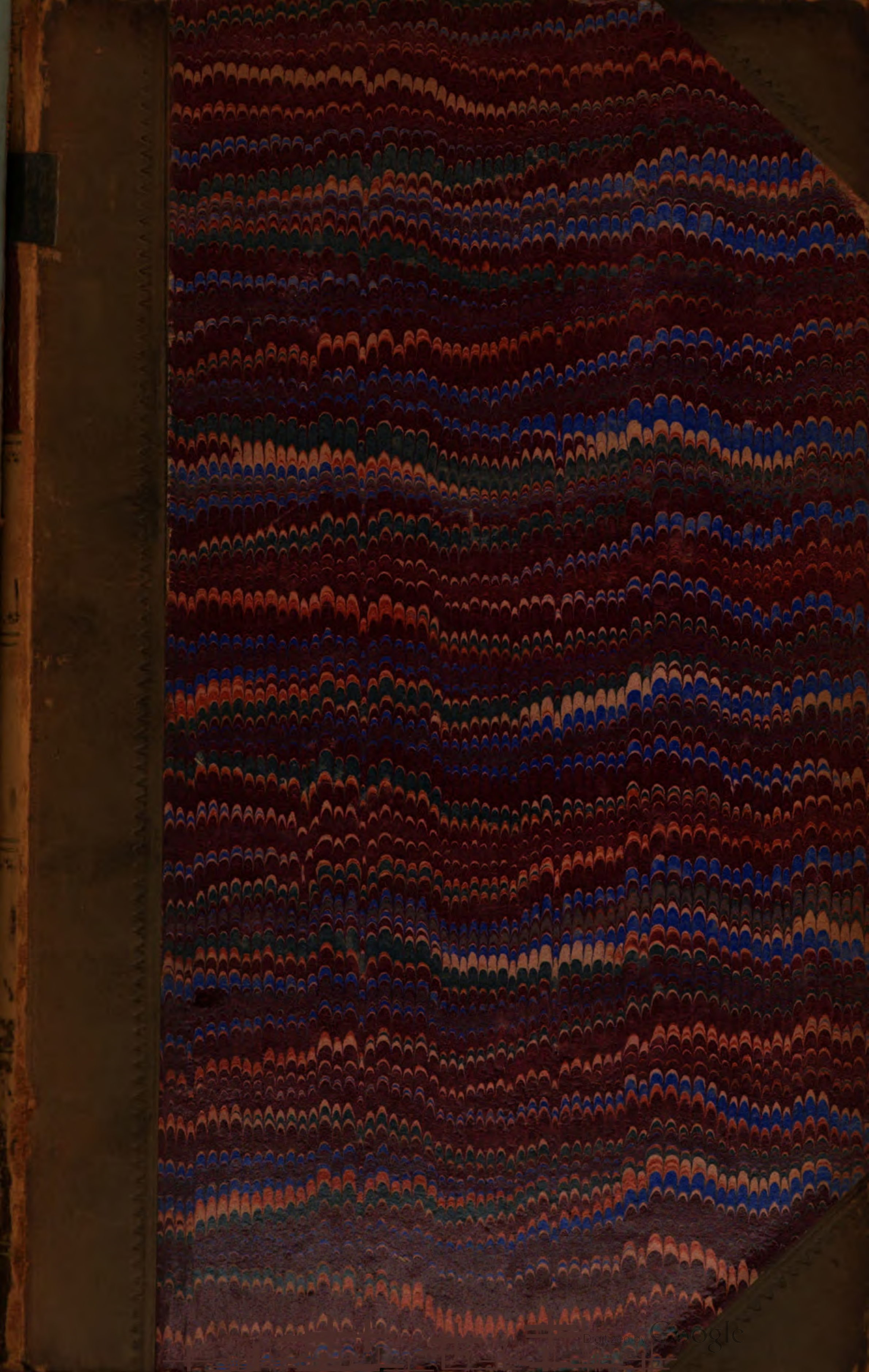

BROADBERE,

ARMY MEDICAL DEPARTMENT

REPORT

FOR THE YEAR 1883.

VOLUME XXV.

LONDON:
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FOR HER MAJESTY'S STATIONERY OFFICE.
1885.

TO THE RIGHT HONOURABLE

THE SECRETARY OF STATE FOR WAR.

SIR,

IN accordance with instructions laid down for the conduct of business by the Director-General and Heads of Branches of the Army Medical Department, I have the honour to submit the accompanying Report on the Health of the Army in 1883, drawn up by the Officers in charge of the respective Branches.

I have the honour to be,
SIR,
Your most obedient
Humble Servant,
T. CRAWFORD,
Director-General.

ARMY MEDICAL DEPARTMENT,
May 1885.

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ARMY MEDICAL DEPARTMENT REPORT FOR 1883.

STATISTICAL REPORT.

Troops at Home and Abroad.

The average annual strength of the troops serving at home and abroad in 1883, as computed from the returns received by the Army Medical Department, was 168,383 warrant officers, non-commissioned officers and men (exclusive of the Royal Malta Fencible Artillery, the 1st and 2nd West India Regiments, and the Gun Lascars at Ceylon, and at Hong Kong, Corps which are not recruited at home); the admissions into hospital in this force were 172,202 and the deaths 1,653. The rates represented by these numbers are for admissions into hospital 1022·7, and for deaths 9·57 per 1,000 of the average annual strength, the latter being calculated on a strength of 172,666, which includes detached men.

The statistics of some of the most important of the results of sickness, in every Command in which the troops were stationed, are exhibited in the following Table :—

1883.

White Troops.	Average Annual Strength.	Admitted into Hospital.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.
Troops at Home and Abroad - -	**168,383**	**172,202**	**1,653**	**3,137**	**2,936**	**9154·28**
United Kingdom -	81,677	69,140	540	—	1,847	3885·82
Gibraltar - -	4,737	4,240	27	111	38	292·23
Malta - - -	4,611	3,526	40	98	34	246·60
Cyprus - - -	512	259	2	8	—	14·00
Egypt - - -	7,897	8,995	275	669	176	600·74
Canada - - -	1,785	1,339	8	79	28	71·44
Bermuda - -	1,434	873	7	29	8	52·89
West Indies - -	831	988	12	47	13	55·82
Cape of Good Hope and St. Helena - -	2,850	1,856	13	157	60	137·65
Mauritius - -	388	787	6	12	—	37·79
Ceylon - - -	969	1,201	12	55	12	54·00
China and Straits Settlements - -	1,713	2,339	12	55	35	107·01
India - - -	56,190	73,847	676	1,817	685	3598·29
On board Ship - -	2,789	2,812	23	--	—	--

Troops at Home and Abroad.

1883.

White Troops.	Ratio per 1,000 of Strength.					Average sick-time to each Soldier.	Average duration of each case of Sickness.
	Admitted.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.		
	*	†	‡	§	‖	Days.‖	Days.‖
Troops at Home and Abroad	**1022·7**	**9·57**	**37·38**	**17·28**	**55·28**	**20·18**	**19·72**
United Kingdom	846·5	6·28	—	21·48	47·57	17·36	20·51
Gibraltar	895·1	5·70	23·43	8·02	61·69	22·52	25·16
Malta	764·7	8·68	21·25	7·37	53·48	19·52	25·52
Cyprus	505·8	3·91	15·63	—	27·34	9·98	19·73
Egypt	1139·0	34·82	84·71	22·29	76·07	27·77	24·38
Canada	750·1	4·48	44·25	15·68	40·02	14·61	19·47
Bermuda	608·8	4·87	20·22	5·58	36·88	13·46	22·11
West Indies	1188·9	14·44	56·56	15·64	67·17	24·52	20·62
Cape of Good Hope and St. Helena	651·2	4·56	55·09	21·05	48·30	17·63	27·07
Mauritius	2028·4	15·46	30·92	—	97·39	35·55	17·53
Ceylon	1239·4	12·38	56·76	12·38	55·73	20·34	16·41
China and Straits Settlements	1365·4	7·01	32·11	20·43	62·47	22·80	16·70
India	1314·3	12·03	32·33	12·19	64·04	23·37	17·78
On board Ship	1008·3	8·24	—	—	—	—	—

* Calculated on strength, excluding men detached (4,283).

† Calculated on strength, including men detached.

‡ Calculated on strength, excluding United Kingdom and troops on board ship.

§ Calculated on strength, including men detached, and excluding troops on board ship.

‖ Calculations exclude men detached and troops on board ship.

1873 to 1882.

White Troops.	Aggregate strength for 10 years.	Admissions into Hospital.	Deaths.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.
Troops at Home and Abroad	**1,702,914**	**1,776,898**	**21,359**	**31,096**	**37,589**	**81,872**
United Kingdom	881,155	732,615	7,169	—	24,738	36,847
Gibraltar	45,801	32,368	322	1,308	659	1,879
Malta	48,565	41,987	469	1,479	820	2,261
Cyprus	2,992	6,210	60	187	64	298
Canada	17,196	11,761	109	379	284	569
Bermuda	18,556	11,810	145	358	244	618
West Indies	10,849	10,132	171	256	151	473
Cape of Good Hope and St. Helena	52,421	44,353	2,130	2,960	1,095	2,629
Mauritius	4,002	8,274	72	165	62	265
Ceylon	10,005	10,101	140	386	147	531
China and Straits Settlements	19,200	20,534	223	821	320	933
India	566,914	830,556	10,167	22,797	9,005	34,569
On board Ship	25,258	16,197	182	—	—	—

* For five years only.

Troops at Home and Abroad.

1873 to 1882.

White Troops.	Ratio per 1,000 of Strength.					Average sick-time to each Soldier.	Average duration of each case of Sickness.
	Admitted.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.		
						Days.	Days.
Troops at Home and Abroad	**1043·4**	**12·21**	**39·04**	**21·80**	**48·80**	**17·81**	**16·97**
United Kingdom -	831·4	7·73	—	26·67	41·82	15·26	18·36
Gibraltar - -	706·7	7·03	28·56	14·39	41·02	14·97	21·19
Malta - -	864·6	9·66	30·45	16·88	46·56	16·99	19·65
*Cyprus - -	2075·5	20·05	62·50	21·39	99·60	36·35	17·51
Canada - -	683·9	6·34	22·04	16·51	33·09	12·08	17·66
Bermuda - -	636·4	7·81	19·29	13·15	33·30	12·16	19·10
West Indies - -	933·9	15·76	23·60	13·92	43·60	15·91	17·04
Cape of Good Hope and St. Helena -	846·1	40·63	56·47	20·89	50·15	18·31	21·64
Mauritius - -	2067·5	17·99	41·23	15·49	66·22	24·17	11·69
Ceylon - -	1009·6	13·99	38·58	14·69	53·07	19·37	19·19
China and Straits Settlements -	1069·5	11·61	42·76	16·67	48·59	17·74	16·58
India - - -	1465·1	17·93	40·21	15·88	60·98	22·26	15·19
On board Ship -	641·2	7·20	—	—	—	—	—

* For five years only.

United Kingdom.

II.—ON THE HEALTH OF THE TROOPS SERVING IN THE UNITED KINGDOM.

Sickness and Mortality.

The average annual strength of the warrant officers, non-commissioned officers and men serving in the United Kingdom during the year, calculated from the returns received from the medical officers, was 81,677, the admissions into hospital were 69,140, the deaths 540 (including 36 among men detached from their corps, the average number of whom is given in Adjutant-General's return as 4,283), and the number of invalids discharged the service 1,847. The average number of men non-effective daily through sickness was 3885·82, the average sick time to each soldier was 17·36 days, and the average duration of each case of sickness 20·51 days.

The annual ratio of admission was therefore 846·5 per 1,000, that of death 6·28, that of discharge by invaliding 21·48, and that of constant inefficiency through sickness 47·57 per 1,000.

Compared with the corresponding rates for the previous year, a decrease of 5·7 per 1,000 has taken place in the admission rate, one of ·66 in the mortality rate, and one of 3·07 in the rate of discharge by invaliding, but in the rate of constantly sick an increase, though only fractional, has occurred.

In comparison with similar rates for the average of the preceding 10 years, a decrease is observed in the rates of prevalence, invaliding, and mortality of 18·8, 2·37, and ·91 per 1,000 respectively, but an increase of 1·85 per 1,000 has occurred in the rate of daily sickness. The total loss by death and invaliding was 2,387 men, as against 2,837 in the preceding year, the ratio per 1,000, 27·76, showing a decrease of 3·73.

The average sick time to each soldier and the average duration of each case of sickness were longer by ·16 and ·33 days respectively than in 1882, and compared with the decennial average periods, the former was longer by 2·10 days, and the latter by 2·24 days.

The admissions, deaths, and other results in the various classes and orders of diseases are shown in Abstract I., and similar information for the different military districts will be found in the Abstracts lettered from A to O.

GENERAL DISEASES.—*Febrile Group.*—The admissions to hospital numbered 2,765, the deaths 36, and the constantly sick, 111·61. The rate of admission, 33·8 per 1,000, is less than that for 1882 by 4·6, and than the average rate for the preceding four years by 11·4; the death rate, ·42 per 1,000, shows in these comparisons a decline of ·31 and ·07 respectively; and the rate constantly sick, 1·37 per 1,000, is also less by about one fifth in both cases.

Eruptive Fevers.—413 admissions and 3 deaths occurred, or 5·1 and ·04 per 1,000 respectively, both being below the average rates, and also below those in the preceding year. Six admissions were caused by small-pox. Four of the cases occurred at Woolwich, one at Dover, said to have been contracted in Dublin, and one at Newcastle, contracted in Sunderland, where the disease was very prevalent among the civil population. All the cases recovered. Scarlet fever caused 87 admissions and 3 deaths, which contrast favourably with 142 admissions and 8 deaths in the preceding year. There was no great prevalence of the disease in any one district, though all (with the exception of the Channel Islands) were affected. The South Eastern district returned the greatest number of cases, 11, of which 9, with one death, occurred at Dover; in the Northern district there were 9 cases and 2 deaths; there were also 9 cases each in Dublin and Aldershot, and other smaller numbers in the remaining districts. Measles caused 150 admissions, 1·8 per 1,000, being only about half as prevalent as in 1882; and, as in the instance of scarlet fever, all the districts were affected, except the Channel Islands. The greatest prevalence was in the South Eastern district, 33 cases, of which 30 happened in Canterbury, where the disease

United Kingdom.

prevailed from May to October, the civil population also being affected. The Eastern district follows with 28 cases, Bury St. Edmunds and Colchester being the stations chiefly attacked, 14 and 13 cases respectively. In the Home district London shows 13 cases out of a total of 15; of the remaining districts affected may be mentioned, in order of frequency, Belfast 14, Southern, Aldershot, and Dublin 12 each, and the rest with single numbers.

Continued Fevers caused 1,105 admissions and 22 deaths, being in the annual ratios of 13·5 and ·25 per 1,000 respectively, which are lower than the corresponding average rates for the previous four years by 2·3 and ·07 per 1,000, and than the similar rates in the preceding year by ·6 and ·26 per 1,000 respectively.

Two cases of typhus fever are returned; both occurred at Tralee; they were not attributed to any local exciting cause.

Enteric fever caused 105 admissions and 21 deaths, or 1·3 and ·24 per 1,000 respectively. In the preceding year there were 178 admissions and 42 deaths, or 2·0 and ·47 per 1,000. The excess in that year was due to the prevalence of the disease in men from Egypt. Compared with the average rates for the preceding four years, the ratios of prevalence and mortality for the year under report show a slight decline in each instance. The per-centage of deaths to attacks was 20, that in the year 1882 being 23·6. With two exceptions, the Channel Islands and the Curragh, all the administrative districts were affected more or less, the greatest prevalence being in those of Dublin, Cork, and Aldershot, the number of cases being 35, 18, and 13 respectively. Taking the different stations it is observed that Dublin was most affected, 20 admissions and 4 deaths being returned. The cases were distributed through the different barracks, and though careful search was made in each instance, no special cause could be detected, but "it appears probable that the disease was con-" tracted by the men in their visits to unhealthy quarters in the city." Athlone returned 14 admissions and 3 deaths. In this instance it is stated that the disease was traced to the use of impure water from a previously disused well while the ordinary water supply was temporarily cut off. When the cause was detected and removed the disease ceased to spread. Next comes Aldershot with 13 cases and 1 death, which, however, compare favourably with the previous year, when 25 cases and 10 deaths occurred; it is stated that no sanitary defect in the barracks is traceable to which the disease can be attributed, also that evidence is wanting to connect these cases with an impure water or milk supply. Eleven of the attacks occurred in the South Camp and two in the North Camp.

At Kinsale 8 cases occurred but no deaths; the disease in this instance was attributable to impure water from a well in barracks, which was found, on analysis, to be unfit for use; on the well being closed no more cases arose.

At Chatham, Glasgow, Belfast, and Fermoy three cases occurred respectively, two cases fatal in the first named place, and one each in the second and third. In London there were 4 attacks and 3 deaths; in one of the cases the man had recently returned from Egypt. At Portsmouth there were 2 cases, both fatal. At York and Colchester each 2 cases and one death, and at Trowbridge, Gosport, Ballincollig, Cork, and Limerick 2 cases respectively, which recovered; single fatal cases occurred at Bedford and Ayr, and single cases, recoveries, at 16 other stations.

Out of the total number of cases 6 are reported to have occurred in men who had served in Egypt and recently returned; 25 cases were attributed to impure or contaminated water supply; in 14 cases it is said that the disease was contracted elsewhere than the station in which it occurred; in the remainder that no insanitary conditions could be discovered, or that no cause could be assigned.

The admissions for simple continued fever and febricula numbered 998, the ratio of admission being 12·2 per 1,000, which is below the average rate by 2·2, but almost identical with the similar rate in the preceding year. One death from simple continued fever is recorded to have occurred at Castlebar; this was probably really one of enteric fever, as out of a draft of men who shortly afterwards left for India it is remarked by the medical officer in charge that seven were attacked by enteric fever *en route;* later in the year enteric fever occurred in the station, and the water of a well was then found to be contami-

United Kingdom.

nated with sewage matter. These fevers, it is observed, were most prevalent in the Dublin, Belfast, Home, Northern, and North British districts.

Paroxysmal Fevers.—Under this head 704 admissions are returned, of which 14 were for remittent fever. No death occurred. The admission rate, 8·6 per 1,000, shows a considerable decline as compared with the average rate of four years, or with that of the preceding year, which were 14·9 and 11·2 per 1,000 respectively.

The prevalence of these fevers was greatest in the Southern district, the rate being 19·3 per 1,000. This is said to have been principally due to the large number of cases of ague in men who arrived in the district from India, and who were more or less affected with malaria. The next rate of prevalence was 12·3 per 1,000 in the Woolwich district, followed by 10·5 in both the Aldershot and Curragh districts. The lowest rate of prevalence of malarial fevers is found in the Channel Islands, 1·5 per 1,000.

One admission and one death are recorded under the head of *cholera*; these were as follows: The admission occurred at Chichester, and was one of simple cholera, said to have resulted from a chill. The death occurred at Portsmouth. The man had been attacked by cholera on 16th May on board ship *en route* from India, and died, after being transferred to hospital on shore, on the 29th May.

Under *other diseases of the febrile group* are 542 admissions with 10 deaths, being at the rate of 6·6 and ·12 per 1,000 respectively. The rate of admission is below the average, but about the same as in the previous year. The rate of mortality is increased in both these comparisons. Of the different diseases it is observed that influenza caused 168 admissions, the South Eastern and Home districts being chiefly affected. Erysipelas caused 176 attacks and 3 deaths, which compare favourably with 269 attacks and 4 deaths in 1882. The greatest number of admissions in one district was in the Home district, 27, the highest in any one station being in London. In the Northern district there were 25 cases, 6 being in York, 5 in Lichfield, and the remainder scattered over various stations. In the Cork district 23 cases are recorded, but there was no particular prevalence in any one station, the most being 4 in Cork and Limerick respectively (in the latter instance two of them being of traumatic origin), but all mild. Fifteen cases are shown in the Western district, 13 in Dublin and 12 cases in Aldershot, which compares most favourably with 53 in the preceding year. The disease was represented in all the remaining districts, but only by a few cases in each. The three fatal cases occurred in Woolwich, Bedford, and Dublin respectively. Pyæmia caused 7 admissions and 4 deaths; of these 3 cases, one being fatal, occurred in London, one, fatal, in Aldershot, Dublin, and Cork respectively, and one, which recovered, at Dover. Mumps caused 178 admissions, of which 62 occurred in Dublin and 49 in Aldershot. Diphtheria shows 15 admissions and 3 deaths, and one case of diphtheritic paralysis is returned. 7 attacks and 1 death happened in Aldershot; these all occurred in May and June, and came from the permanent barracks, viz., one case from the East Infantry barracks, one from the West Infantry barracks, three from the Centre Infantry barracks, and two in the West Cavalry barracks. The Principal Medical Officer, Surgeon-General R. Gilborne, however, remarks that "the disease was probably imported, as each case that occurred was "isolated and the disease never spread in the barracks. Strict sanitary "investigations were made by a board of officers, whose recommendations "were carried out." Three cases and one death, and the case of diphtheritic paralysis, are returned from Woolwich, where the disease also occurred to some extent among children; no insanitary condition in the vicinity of the barracks or quarters was discovered, but it is presumed the attacks may have originated by the men visiting dirty and insanitary parts of the town. At Limerick there were two cases, one being fatal. The first case was of a malignant character and terminated fatally; it is believed to have been contracted in a low street in the town where it was known that some cases existed; the second case occurred in a man who was in attendance on his comrade, the first case. Of the remaining three cases, one occurred in Bodmin, Pontefract, and Winchester respectively; no cause was traced in any instance.

Constitutional Diseases.—15,798 admissions and 160 deaths in all are returned under this head, being in the annual ratios of 193·4 and 1·86 per 1,000 respectively. The admission rate is above that of the average of the preceding four years by 19·9, and that of the previous year by 13·3 per 1,000. The death rate, however, in these comparisons shows a decrease of ·58 and ·26 per 1,000 respectively.

United Kingdom.

Rheumatism caused 3,153 admissions, at the rate of 38·6 per 1,000, being slightly less prevalent than on the average, and than in the preceding year. Six deaths are returned from acute rheumatism, one at Tynemouth, Chatham, Canterbury, Piershill, Dublin, and Liverpool respectively. The highest rate of prevalence of rheumatic affections occurred in the Home district, 51·4 per 1,000, followed by Aldershot with a rate only fractionally lower. Chatham gave a rate of 48·6, and the Northern and Eastern divisions 44·6 and 43·9 per 1,000 respectively. As in the preceding year, Woolwich records the lowest rate of prevalence, 25·2 per 1,000. Also, as in 1882, all the Irish districts have comparatively low admission rates for these affections, varying from 38·9 per 1,000 in the Dublin district, to 25·3 per 1,000 in the Cork district.

Syphilis.—The number of admissions for primary syphilis was 9,511, and for the secondary form 2,330, being in the annual ratios of 116·5 and 28·3 per 1,000 respectively. Comparing the admission rate for primary syphilis with that of the preceding year an increase of 14·5 is observed, and in comparison with the mean rate of the previous four years the increase amounts to 25·5 per 1,000. With regard to secondary syphilis the admission rate is slightly below the average but fractionally above the rate in the previous year.

The admission rate for all forms of venereal disease, including gonorrhœa and its sequelæ, amounts to 260·0 per 1,000, and the rate constantly sick from these affections to 18·54 per 1,000. Compared with the returns for the previous year an increase of 14·0 and 1·68 per 1,000 respectively is observed, but compared with the average rates of the four preceding years the increase in the ratio of admission per 1,000 amounts to 30·1, and in the ratio of inefficiency through these diseases to 3·19 per 1,000,

There is considerable variation in the rates of admission for primary disease in the different districts; among the higher are the Home district, 178·1 per 1,000, Dublin 175·2, and Aldershot 158 per 1,000; and among the lower the Southern district 83·0 per 1,000, the North British district 68·7, and Cork 68·5 per 1,000. The greatest prevalence of secondary syphilis was in the Dublin district, 54·0 per 1,000, followed by the Aldershot and Home districts with 37·7 and 36·9 respectively, and the lowest in Chatham and Woolwich, 16·3 and 12·7 per 1,000.

United Kingdom.

In continuation of the statistical information given in the reports of previous years, the admissions for primary venereal sores and gonorrhœa at certain large stations in the United Kingdom and the rates per 1,000 of the average annual strength are shown in the following table:—

Stations under the Act.

Stations.	Average Annual Strength.	Admitted for Primary Venereal Sores.	Admitted for Gonorrhœa.	Ratio per 1,000 of the Strength admitted for Primary Venereal Sores.	Ratio per 1,000 of the Strength admitted for Gonorrhœa.
Devonport and Plymouth -	2,560	310	452	121	177
Portsmouth - -	4,219	385	417	91	99
Chatham, Sheerness, and Gravesend.	3,002	253	309	84	103
Woolwich - -	4,298	374	313	87	73
Aldershot - - -	9,110	1,444	1,072	158	118
Windsor - - -	961	78	68	81	71
Shorncliffe - -	1,649	155	96	94	58
Colchester - -	2,244	265	260	118	116
Winchester - -	1,102	63	108	57	98
Dover - - -	2,137	135	140	63	65
Canterbury - -	1,483	114	186	77	125
Maidstone - -	205	5	11	24	54
Cork - - -	2,078	177	135	85	65
Curragh - - -	3,041	414	221	136	73
Total of 14 stations under the Act -	38,089	4,172	3,788	110	99

Stations *not* under the Act.

Stations.	Average Annual Strength.	Admitted for Primary Venereal Sores.	Admitted for Gonorrhœa.	Ratio per 1,000 of the Strength admitted for Primary Venereal Sores.	Ratio per 1,000 of the Strength admitted for Gonorrhœa.
Isle of Wight - -	806	92	73	114	91
London - - -	4,367	1,120	499	256	114
Warley - - -	516	88	89	171	172
Hounslow - - -	800	61	42	76	52
Pembroke Dock - -	769	72	71	94	92
Sheffield - - -	558	101	89	181	159
Manchester - -	805	213	195	265	242
Preston - - -	455	25	49	55	108
Edinburgh - -	855	83	77	97	90
Fermoy - - -	978	60	59	61	60
Limerick - - -	1,144	131	104	114	91
Athlone - - -	677	9	38	13	56
Dublin - - -	4,721	1,249	946	265	200
Belfast - - -	823	137	112	166	136
Total of 14 stations *not* under the Act -	18,274	3,441	2,443	188	134

United Kingdom.

These stations were originally chosen for the purposes of comparison upon the principle that it was advisable to take no station where the strength was on an average under 500, that small detachments would produce grave irregularities in the figures, and that it would be unfair to compare very small stations with those in which the Act is in force. With regard to the remaining unprotected stations it may be added that in addition to the limited number of troops at many of them, the greater number are situated in country districts where there is but little prostitution and consequently little or no disease, this also would render comparison unfair.

The group of 14 stations under the Act shows an increase of 32 per 1,000 in the ratio of men admitted for primary venereal sores as compared with the corresponding rate of the preceding year: the contrasted group of 14 stations not under the Act shows an increase of 9 per 1,000 men.

Stations.	Rate of Admissions into Hospital per 1,000 of Mean Strength for Primary Venereal Sores in—																
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	*1874.	*1875.	*1876.	*1877.	*1878.	*1879	1880.	1881.	1882.	†1883.
Devonport and Plymouth.	76	66	74	58	50	59	37	36	29	27	28	34	33	50	51	74	121
Portsmouth	116	86	62	51	41	40	44	48	30	27	27	15	27	76	57	61	91
Chatham and Sheerness.	71	63	41	47	65	49	41	33	17	33	43	40	51	62	63	71	84
Woolwich -	88	46	52	43	58	60	60	47	59	42	29	38	44	73	63	64	87
Aldershot -	81	77	63	67	65	62	72	52	46	47	46	53	56	74	100	115	158
Windsor -	58	136	93	67	78	96	84	63	41	41	80	39	46	106	163	115	81
Shorncliffe	42	77	60	100	30	33	21	14	18	22	21	41	68	86	34	40	94
Colchester	145	182	85	42	32	55	42	20	32	30	52	19	37	43	85	61	118
Winchester	52	104	101	61	29	57	27	38	27	20	18	38	23	45	52	66	57
Dover -	132	111	80	30	24	47	38	37	27	30	19	31	36	49	50	28	63
Canterbury	119	114	45	152	38	43	20	36	12	27	19	27	34	75	86	54	77
Maidstone	242	122	128	68	44	57	59	66	7	28	34	7	19	43	45	50	24
Cork -	72	61	73	68	55	62	61	26	21	21	16	36	29	72	53	66	85
Curragh -	104	85	88	56	35	50	30	46	35	18	38	54	77	124	63	82	136
IsleofWight	59	103	129	64	66	57	37	89	89	54	51	50	56	69	74	123	114
London -	163	148	144	160	190	199	185	179	187	146	166	250	173	225	219	184	256
Warley -	74	92	61	55	57	66	22	32	37	51	59	140	120	67	121	170	171
Hounslow -	62	106	85	88	45	90	67	68	24	75	48	40	19	117	121	64	76
Pembroke Dock.	28	35	51	54	28	27	25	21	31	29	16	12	15	64	96	70	94
Sheffield -	163	107	146	77	126	98	71	49	87	119	64	96	132	154	279	263	181
Manchester	177	115	160	92	70	98	91	106	89	113	131	205	205	232	228	287	265
Preston -	87	87	172	134	75	114	123	97	57	77	77	73	57	98	104	69	55
Edinburgh	63	46	60	99	69	43	44	25	27	89	47	72	80	75	94	102	97
Fermoy -	70	47	116	89	33	56	21	10	12	31	29	26	33	94	84	69	61
Limerick -	117	114	54	136	57	100	78	58	25	47	75	85	28	62	143	81	114
Athlone -	85	38	42	44	47	14	14	8	10	8	35	29	15	49	36	15	13
Dublin -	129	139	180	128	117	165	136	95	73	76	103	154	117	216	259	304	265
Belfast -	89	56	52	43	61	78	103	64	44	57	43	66	124	273	183	131	166

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* In October 1873 a Royal Warrant was promulgated, directing that soldiers admitted into hospital on account of venereal disease should forfeit their pay whilst under treatment. This Warrant was cancelled by another dated 27th November 1879.

† In the month of May in the year under report a change was made in the working of the Contagious Diseases Acts by the abolition of the compulsory examination of women.

United Kingdom.

The results obtained by a different grouping of the stations in the United Kingdom are shown in the following Table :—

Groups.	Average Annual Strength.	Admissions into Hospital for Primary Venereal Sores.	Ratio per 1,000 of the Strength of Admissions for Primary Venereal Sores.
The 14 stations under the Contagious Diseases Act.	38,089	4,172	110
All other stations - -	43,588	5,339	122
Total -	81,677	9,511	116

No admissions for this disease are returned at 32 stations having an aggregate average annual strength of 848 men.

TABLES relating to the CONTAGIOUS DISEASES ACTS, as regards the ARMY, contrasting the Results at 28 Large Stations, 14 under the Act, and 14 not under the Act, selected for comparison with the former, as previously shown, all having a strength of 500 Men and upwards, when the first Act was applied.

I.—TABLES showing the Admissions into Hospital for Primary Venereal Sores and for Gonorrhœa at the 28 Stations above described, from 1860.

Year.	The Fourteen Stations successively brought under the Acts.					Fourteen Large Stations not under the Acts.				
	Average Annual Strength.	Admissions into Hospital for Primary Venereal Sores.	Admissions into Hospital from Gonorrhœa.	Ratio per 1,000 of the Strength.		Average Annual Strength.	Admissions into Hospital for Primary Venereal Sores.	Admissions into Hospital from Gonorrhœa.	Ratio per 1,000 of the Strength.	
				Primary Venereal Sores.	Gonorrhœa.				Primary Venereal Sores.	Gonorrhœa.
1860 - - -	57,479	8,405	7,966	146	139	17,118	2,292	2,374	134	139
1861 - - -	51,328	7,267	7,133	142	139	17,126	2,049	2,023	120	118
1862 - - -	45,322	5,314	6,283	117	139	15,026	1,500	2,070	100	138
1863 - - -	43,419	4,653	5,202	107	120	15,132	1,612	1,816	107	120
Totals for 4 years -	197,518	25,639	26,584	—	—	64,402	7,453	8,283	—	—
Average for 1860–63 -	49,387	6,410	6,646	130	135	16,100	1,863	2,071	116	129
1864 - - -	40,694	4,135	4,803	102	118	14,894	1,647	1,636	111	110
1865 - - -	43,078	4,077	4,937	95	115	14,091	1,418	1,968	101	140
1866 - - -	39,476	3,444	4,573	87	116	14,595	1,154	1,663	79	114
1867 - - -	39,911	3,640	5,274	91	132	20,589	2,372	2,670	115	130
1868 - - -	42,595	3,533	5,685	83	133	19,486	2,130	2,236	109	115
1869 - - -	42,017	2,765	4,466	66	106	17,739	2,273	1,856	128	105
Totals for 6 years -	247,771	21,594	29,738	—	—	101,394	10,994	12,029	—	—
Average for 1864–69 -	41,295	3,599	4,956	87	120	16,899	1,832	2,005	108	119
1870 - - -	41,580	2,268	4,081	55	98	17,852	2,022	1,723	113	96
1871 - - -	54,096	2,763	6,254	51	116	19,957	1,865	2,137	93	107
1872 - - -	50,794	2,752	5,280	54	104	19,950	2,457	2,113	123	106
1873 - - -	48,039	2,420	3,946	50	82	19,801	2,025	1,888	102	95
1874 - - -	48,136	2,039	2,968	42	62	18,879	1,661	1,450	88	77
1875 - - -	48,606	1,717	2,825	35	58	19,573	1,552	1,405	79	72
1876 - - -	48,620	1,622	3,302	33	68	18,790	1,551	1,677	82	89
1877 - - -	52,422	1,809	3,585	35	68	19,076	1,730	2,234	91	117
1878 - - -	55,813	2,235	4,352	40	78	20,749	2,723	2,508	131	121
1879 - - -	42,646	2,005	2,939	47	69	18,058	1,943	1,719	108	95
1880 - - -	44,026	3,280	4,387	74	100	18,054	3,010	2,305	167	128
1881 - - -	39,558	2,920	3,821	74	97	19,613	3,559	2,403	181	122
1882 - - -	41,783	3,275	4,199	78	100	19,449	3,481	2,618	179	136
Totals for 13 years	616,119	31,105	51,939	—	—	249,831	29,582	26,180	—	—
Average for 1870–82 -	47,394	2,393	3,995	50	84	19,218	2,276	2,014	118	105
1883 - - -	38,089	4,172	3,788	110	99	18,274	3,441	2,443	188	134

United Kingdom.

N.B.—For the years 1860–66 inclusive, Windsor has been omitted from the group of stations under the Act, and London from that *not* under the Act, as the returns for those years do not afford the necessary information.

II.—Tables showing the Number of Men always in Hospital with Primary Venereal Sores at the 28 Stations above described, in each Year, from 1870 to 1882, inclusive, and in the year 1883, together with the ratio per 1,000.

Year.	Under the Act.			Not under the Act.		
	Average Annual Strength.	Constantly in Hospital with Primary Venereal Sores.	Ratio per 1,000 of the Strength.	Average Annual Strength.	Constantly in Hospital with Primary Venereal Sores.	Ratio per 1,000 of the Strength.
1870 - - -	41,580	186	4·46	17,852	174	9·74
1871 - - -	54,096	210	3·89	19,957	161	8·07
1872 - - -	50,794	232	4·56	19,950	225	11·29
1873 - - -	48,039	214	4·45	19,801	175	8·86
1874 - - -	48,136	150	3·11	18,879	130	6·89
1875 - - -	48,606	129	2·66	19,573	115	5·88
1876 - - -	48,620	120	2·47	18,790	112	5·94
1877 - - -	52,422	137	2·61	19,076	119	6·23
1878 - - -	55,813	175	3·14	20,749	185	8·90
1879 - - -	42,646	154	3·61	18,058	149	8·25
1880 - - -	44,026	252	5·72	18,054	218	12·07
1881 - - -	39,558	218	5·51	19,643	276	14·05
1882 - - -	41,783	272	6·51	19,449	244	12·51
Total - -	616,119	2,449	—	249,831	2,283	—
Average for 13 years -	47,394	188	3·97	19,218	176	9·16
1883 - - -	38,089	330	8·66	18,274	289	15·81

For the four years (1860–63) preceding that in which the first Contagious Diseases Act was passed, the average rate of prevalence of primary venereal sores at a group of stations, each of which was successively placed under the Act, is 130, and that for gonorrhœa is 135 per 1,000 of the strength. At another group of 14 stations (originally selected for comparison because at the time the stations comprised in it were large ones, that is, had not less than 500 men) the rate of prevalence of primary venereal sores is 116, and that for gonorrhœa is 129 per 1,000 of the strength.

In the next period shown (1864–69) the Act was applied successively at each of the stations in the subjected group; in 1865 it was in operation at three stations, in 1866 at four, in 1867 at five, in 1868 at eight, in 1869 at 10, in 1870 it was in operation at all the 14 stations. During this period the average rate of prevalence of primary venereal sores fell to 87 per 1,000 of the strength, in the subjected group; in the contrasted group of large stations it fell to 108 per 1,000 of the strength. The result, therefore, is that the subjected group of stations which before the application of the Act had a rate of prevalence 14 per 1,000 higher than the unsubjected group, for the period of its partial application, had a rate of prevalence 21 per 1,000 lower than that of the unsubjected group.

In the third period shown (1870–82) the Act was in force for the whole time at every one of the stations in the subjected group, and the average rate of prevalence of the disease was 50 per 1,000 men, an average rate higher by 2 per 1,000 when compared with that for the period 1870 to 1881; in the unsubjected group the rate was 118 per 1,000 men, an average rate higher by 5 per 1,000 when compared with that for the period from 1870 to 1881.

The statistics for the year under report being under different conditions to those of former years, owing to the abolition of compulsory examination of women, are given separately. Compared with the average rates for the preceding 13 years, the rate of admission for primary venereal sores in the subjected districts, 110 per 1,000, shows an increase of 60, and in the unsubjected districts tde rate, 188 per 1,000, is increased by 70. In comparison with the rates for the previous year, that for the subjected districts is increased by 32, and that in the unsubjected districts by 9, per 1,000.

United Kingdom.

With regard to gonorrhœa, the rate of prevalence in the first years of the Act did not materially differ in the two groups of stations, but in the 13 years 1870 to 1882 the average rate for the subjected groups is 84 per 1,000, and that for the unsubjected group 105 per 1,000. In the year 1883 the rate for the stations formerly under the full protection of the Act is 99 per 1,000 and that for the unprotected 134 per 1,000, showing an increase on corresponding average rates, but in comparison with the preceding year the rate of prevalence is reduced by 1 per 1,000 in both subjected and unsubjected districts.

Table II. shows that during the period of 13 years the average ratio per 1,000 always in hospital for primary venereal sores was 3·97 per 1,000 in the protected, and 9·16 in the unprotected, districts. The ratios for the year under report are 8·66 and 15·81 per 1,000 respectively, showing a considerable increase on the average rates of previous years; but compared with the rates for the preceding year there is an increase of prevalence in both groups of stations, though not to the same extent as in the former comparison.

From the foregoing statistics it is evident that a considerable increase of venereal disease, principally primary venereal sores, but also gonorrhœa, has taken place in the year 1883, as compared with the average amount in the 13 previous years, but in comparison with the preceding year the increase of disease is not so marked and there is none in gonorrhœa. It should be observed, however, that the rates for the three years 1880 to 1882 are generally higher than those of the preceding 10 years.

Further statistical information on this subject is given in a Return, drawn up by direction of the Secretary of State for War, published as a Parliamentary Paper, and now republished in Abstract No. Q. of this Report.

Tubercular diseases caused 697 admissions and 148 deaths, being in the ratios of 8·5 and 1·72 per 1,000 respectively. Compared with the results for the preceding year a decrease of admission rate of 1·1 per 1,000 has occurred, and one of ·28 in the rate of mortality; in comparison with the mean results for the previous four years there is a decrease in rate of prevalence of 2·0, and in that of mortality of ·54 per 1,000.

Comparing the rates of prevalence of these affections in the different districts the highest is found in that of Dublin, 11·0, and the Curragh, 10·9 per 1,000; and the lowest in Chatham, 5·0, and the Channel Islands, 4·5 per 1,000. The rates of prevalence in the Northern, Southern, and Eastern districts, from 9·8 to 9·1, are comparatively high. The rate of prevalence for all the Irish districts taken together, 9·6 per 1,000, exceeds that for all those of the remainder of the United Kingdom by 1·48 per 1,000. The greater part of the admissions were due to phthisis pulmonalis, and all the deaths in this class, except four, were caused by this disease. It will be observed the mortality from this affection is very high, the deaths from it, 144, being at the rate of 26·7 per cent. of the deaths from all causes, or more than one fourth.

Scurvy and purpura show 16 admissions in all; there was no death; three cases occurred in the Home district, two each in Aldershot and the Northern districts, one in the Eastern district, and the remainder in Ireland, five being in Dublin, two in Cork, and one at the Curragh.

Other diseases of this group caused 91 admissions and six deaths, the rates of admission and mortality differing but slightly from those of the average, or from those corresponding in the preceding year. All the deaths were caused by cancer.

LOCAL DISEASES.—*Diseases of the Nervous System.* 911 admissions and 36 deaths are recorded under this head, being in the annual ratios of 11·2 and ·42 per 1,000 respectively, which differ but very slightly from those in the preceding year, but are below those of the average of four years by 1·2 and ·05 per 1,000 respectively. The highest rates of prevalence are recorded in the Eastern and South-Eastern districts, 14·3 and 13·4 per 1,000 respectively, and the lowest in Aldershot, 8·3, and in the Channel Islands 7·5 per 1,000. The rates of mortality varied from 1·40 per 1,000 in the Belfast district to *nil* in the North British district and Channel Islands. The causes of mortality were meningitis 11 cases, apoplexy 10, softening of the brain five, paralysis and epilepsy four each, and encephalitis and abscess of the brain one case respectively.

United Kingdom.

The admissions for mental disease numbered 199, and 94 men were discharged the service on this account. The ratio of admission was therefore 2·44 per 1,000, and that of discharge 1·15 per 1,000, both being very slightly higher than the similar ratios for the preceding year.

Diseases of the Eye caused admissions in the ratio of 15·3 per 1,000, which is a fractional increase on the average rate, and on that of the previous year. The rate of admission for ophthalmic affections varied a good deal in the different districts, from 22·7 in Aldershot to 9·3 per 1,000 in Woolwich.

The rates of admission for *diseases of the ear and nose,* 5·2 and ·6 per 1,000 respectively, differ hardly at all from the previous year's rates or those of the average.

Diseases of the Circulatory System caused 985 admissions and 48 deaths, being in the annual ratios of 12·1 and ·56 per 1,000 respectively. Compared with the preceding year is observed a decline of 2·7 in the admission rate, and one of ·16 in that of mortality, and an almost similar decline in each instance when compared with the average rates for the previous four years. The ratios of admission vary a good deal in the different districts, among the highest being 16·9, 16·5, and 16·4 per 1,000 in the South-Eastern, Dublin, and Curragh districts respectively; and among the lowest being 8·8 per 1,000 in Belfast, 6·6 in Aldershot, and 4·5 per 1,000 in the Channel Islands. 445 of the admissions were due to palpitation, being in the rate of 45·2 per cent. of the total admissions; valve disease of heart caused 283 admissions or 28·7 per cent. of the total number; 33 cases of hypertrophy of the heart, and 18 admissions for aneurism of the aorta are returned. The cause of death was valve disease of heart in 19 instances, aneurism of the aorta in 14, fatty degeneration of the heart in six, pericarditis in four, and aneurism of heart, endocarditis, hypertrophy of heart, fibrinous concretions in the heart's cavities, and syncope in one instance respectively.

Diseases of the Absorbent System caused 963 admissions and one death, being in the annual ratios of 11·8 and ·01 per 1,000 respectively; there is scarcely any difference in admission rate in comparison with those of the previous year, and of the average, and no difference in the death rate. The highest rate in any district was 16·7 per 1,000 in the Home district and the lowest, 6·7 in that of Belfast.

Diseases of the Respiratory System.—5,158 admissions and 114 deaths are recorded under this head, the rates of prevalence and mortality being 63·2 and 1·33 per 1,000 respectively. Compared with the similar rates for the previous year a decrease of 2·3 per 1,000 is noticed in that of admission, but an increase of 1·14 in that of mortality; in comparison with the mean rates for the preceding four years a decline of 14·1 per 1,000 has occurred in the former and one of ·07 in the latter.

In the Curragh, Southern, and Eastern districts the admission rates were 91·7, 78·5, and 74·7 per 1,000 respectively, and in Cork, Belfast, and the Channel Islands 49·9, 47·4, and 32·5 per 1,000, the rates for the remaining districts being intermediate. The highest mortality rate was in the Eastern district, 1·91 per 1,000, and the lowest, ·58 per 1,000, in the Western.

Of the total number of admissions bronchial affections caused more than three fourths; pneumonia caused 622 admissions, or at the rate of 12 per cent. of the cases of respiratory disease treated, and pleurisy returns 221 cases, or about 4¼ per cent.

The chief cause of mortality was pneumonia, 77 deaths out of a total of 114 being due to it; bronchitis was the cause of 18 deaths, and pleurisy of 8.

Diseases of the Digestive System.—8,930 admissions and 40 deaths are returned, being in the annual ratios of 109·3 and ·47 per 1,000 respectively. These rates differ but very slightly from the average rates of the previous four years, but in comparison with those of the preceding year a decline of 3·2 per 1,000 is observed in the former and one of ·11 in the latter. A good deal of variation of admission rate is noticed in the different circles, the highest rate being 149·1 per 1,000 in the Eastern district, followed by 132·2 in the Southern, and others in decreasing order to the lowest, 73·3 per 1,000, in the Belfast district.

All the Irish districts have comparatively low rates of prevalence. With one exception, 1·39 per 1,000 in the North British district, the rates of mortality in the different divisions are fractional, and two of the Irish districts, Dublin and the Curragh, had no mortality from these affections.

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Examining into the various causes of admission, it is observed that 3,568, or more than one third of the total number, were due to tonsillitis, and 1,735, or about one fifth, to dyspepsia, more than half the sickness from digestive affections being due to these two disorders. The admissions for dysentery were 169 and for diarrhœa 791, the rates of prevalence being low. Hepatic diseases caused a total of 728 admissions, of which 296 are returned for jaundice alone. The causes of death were hepatic affections in 16 instances (including 7 of hepatic abscess), peritonitis 8, dysentery and diarrhœa 3 each, hæmatemesis 2, and various other diseases single cases respectively.

Diseases of the Urinary System.—Gonorrhœa and its sequelæ caused 9,386 admissions, or 115 per 1,000. This rate is less by 1·0 than that of the previous year, though above the average of the preceding four years by 5·6 per 1,000. The rates of prevalence of these affections vary considerably in the different districts. Among the highest rates are 226·4 per 1,000 for the Channel Islands, 151·4 for Dublin, and 151·0 for the Western district. Woolwich and Cork show the lowest rates, 77·8 and 73·4 per 1,000 respectively.

The admissions into hospital for gonorrhœa at specified groups of stations in the United Kingdom are shown in the following table:—

Groups.	Average Annual Strength of the Group.	Admissions into Hospital for Gonorrhœa.	Ratio of Admission per 1,000 of Strength.
The 14 stations under the Contagious Diseases Act -	38,089	3,788	99
The 14 large stations not under the Act - - -	18,274	2,443	134
All other stations not under the Act - - -	25,314	2,342	93
Total - - - - -	81,677	8,573	106

The other diseases of the urinary system caused 1,082 admissions and 9 deaths, being in the annual ratios of 13·2 and ·10 per 1,000. The rate of admission was slightly above, and that of mortality slightly below, the corresponding average rate, as well as in the previous year.

The deaths were due to Bright's disease in 7 instances, and one death is recorded from urethral stricture and acute cystitis respectively.

Diseases of the Generative System caused an admission rate of 10·8 per 1,000, differing but very slightly from the average rate and that of 1882.

In the rate of admission for *diseases of the organs of locomotion* but little variation has occurred from the previous year, and none compared with the average rate; the mortality rate, ·09 per 1,000, is a slight decrease. The deaths were eight in number, three due to caries, two to psoas and lumbar abscess respectively, and one to iliac abscess.

Diseases of the Cellular Tissue caused an admission rate of 24·5 per 1,000, which is rather higher than the average rate or that of 1882.

Diseases of the Cutaneous System caused a large number of admissions, 8,358, which were distributed at a fairly average rate over the different districts, that of Woolwich only showing a peculiarity in being much less than any other. The total rate of prevalence was 102·3 per 1,000, which is a decline of 3·8 on that of the preceding year, and one of 11·5 on the average rate.

Debility caused a rate of admission of 10·5 per 1,000, being lower than in 1882, but about the mean of former years.

Poisons.—171 admissions and 4 deaths are returned under this head, being in the annual ratios of 2·1 and ·05 per 1,000 respectively; the rate of admission is the same as the average but slightly less than in the previous year, the rate of mortality is under half of the average rate, and is one third of that of 1882, when 13 deaths occurred. The admissions were mostly due to alcoholic poisoning and delirium tremens, 78 and 85 respectively, and one death is returned from the latter cause; the remaining admissions were as follows: poisoning by opium, by cyanide of potassium, and by hydrate of chloral, one case respectively, all fatal; the last two were suicidal, the first accidental, the man having taken an overdose of opium, the verdict in this case was death by misadventure. Two admissions occurred from oxalic acid poisoning, both recovered; in one case the drug was taken by mistake, and in the other it is stated that the man was under the influence of drink, but there is some doubt as to whether the poisoning was accidental or not. One case of aconite poisoning and one of iodoform poisoning occurred, both with suicidal intent, but both recovered under prompt treatment; the latter case was specially reported

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in the Appendix to the last departmental volume. A case of poisoning by coal gas occurred in the military prison, Limerick, owing to escape due to a defect in a gas pipe, but the man soon recovered when treated. An instance of poisoned wound from the bite of a dog concludes the list of admissions under this head.

INJURIES.—General injuries caused six admissions and 45 deaths, as against 14 and 44 in the preceding year, and being about equal in frequency to the average rates. The admissions were due to multiple injury in 4 instances, and to burns and exposure to cold in one respectively. 30 of the deaths were due to drowning, one case was suicidal, 27 the result of accident, and in two there was an open verdict. 11 deaths were due to multiple injury, 5 of these were caused by an accidental explosion during the process of filling shell at Gosport (6 men were injured but only 1 recovered); of the remaining multiple injuries, two resulted from falls from carriages, one from an accident on a railway, one from a fall from a horse, the others not being stated. Hanging was the cause of four deaths, suicides, and one death is returned from exposure to cold while drunk.

Local Injuries caused 8,387 admissions and 36 deaths, being in the annual ratios of 102·7 and ·42 per 1,000 respectively; the admission rate is slightly below, and the death rate slightly above, the corresponding rate for the previous year, and that for the average of the preceding four years. The admissions were due to various causes, principally wounds, sprains, and contusions, all being very numerous. One death is returned from contusion; it was the result of a kick from a horse, and the abdominal viscera were ruptured; concussion of the brain caused 17 admissions and 2 deaths, both these being due to falls; fracture was the cause of 387 admissions and 11 deaths, due to fracture of the skull resulting from falls, &c. in 10 cases, and to fracture of the spine in the remaining case. Gunshot wounds show 30 admissions and 14 deaths, 11 of the latter were cases of suicide, two were accidental, and one was a case of homicide. Cut throat, self-inflicted, was the cause of 3 deaths. The remaining four resulted from rupture of bladder, laceration of the brain without fracture, laceration of aorta due to swallowing a fish bone one month previously, and injury of the torcular herophili from a fall, one case respectively. Both the last two cases are of interest, and full accounts of them were published in the Appendix to the last departmental report.

Injuries received in action are returned in 19 instances; these were chiefly wounds received in Egypt which required readmission into hospital in this country.

One death from "cause unknown" is returned; it was a case of suicide.

The total number of cases of *suicide* among the troops in the United Kingdom during the year was 22, being in the ratio of ·25 per 1,000 of strength, which is a slight decline from that of the preceding year, when the number was 24. The modes of suicide were—gunshot wounds 11 cases, hanging 4, cut-throat 3, poison 2, drowning 1, and one case not stated. With regard to causation no motive is assigned in 14 cases, in two cases the men were in monetary difficulties, in two intemperance was more or less directly the cause, and in one case respectively depression, remorse, shame, and disappointment are assigned as causes.

The average age of the suicides was 30 years, and the average length of service 11 years.

Two admissions for cut-throat, *self-inflicted,* are recorded, both of which recovered; in one case the man was in a state of mania, and in the other the man is said to have been drunk. Two cases of poisoning with suicidal intent, one by iodoform and the other by aconite, are returned; recovery took place in both instances.

Surgical operations.—These comprised an amputation at the shoulder joint, on account of osteoid cancer, with successful result, and two amputations of the thigh, one at the upper third on account of compound fracture of the femur, the other, at the middle third, being necessitated by the effects of the accidental explosion of a shell; also amputation of the thumb 1, fingers 5, and toes 6, for various causes, all with satisfactory results.

The brachial artery was successfully ligatured in a case of gunshot wound. Excision of the eye ball was practised in two instances with satisfactory results; an operation for cataract, and one for double strabismus were also successful. Three cases of excision of the testicle, one on account of injury and the others

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on account of disease, were successful. Removal of a fibrous tumor from the neck, described as formidable on account of its size, position, and ramifications, was only partially successful; but the removal of four other tumors of different kinds, besides other minor operations of this nature, were successfully performed. Strangulated hernia necessitated operation in two cases, one with fatal, the other with successful, result. A case of perineal section on account of extravasation of urine, and one of urethrotomy on account of urinary abscess, gave satisfactory results, as well as Holt's operation in a case of stricture; the removal of a calculus was also successful. Of three cases of paracentesis thoracis two terminated favourably, but one fatally; and paracentesis abdominis afforded temporary relief in one case. Tracheotomy was performed in three instances, two being cases of laryngitis; one of these was unsuccessful, but in the other the patient lived for eight hours; in the third case, one of diphtheria, the operation was attended with a fatal result. Various operations for fistula in ano, hydrocele, tenotomy, and other minor operations are recorded and were successful.

Invaliding.—During the year 1883 the number of men discharged the service by invaliding was 1,847, being in the annual ratio of 21·48 per 1,000. A decline of 3·07 per 1,000 has occurred as compared with the corresponding rate for the previous year, and one of 2·37 per 1,000 in comparison with the mean rate of the preceding decennial period. The principal causes of invaliding, in order of frequency, were diseases of the circulatory system 353 cases, or 4·11 per 1,000, tubercular diseases 298, or 3·47 per 1,000, diseases of the nervous system, 235, or 2·73 per 1,000, of the digestive system 167, or 1·94 per 1,000, debility 149, or 1·73 per 1,000, rheumatic affections 98, or 1·14 per 1,000, and diseases of the organs of locomotion 97, or 1·13 per 1,000. In all other classes and orders of diseases the rates of invaliding were either fractional or *nil.* Comparing these rates of invaliding with those in the preceding year, no great difference is observable in any of them, the most marked being a decline of ·75 per 1,000 in invaliding for affections of the circulation, one of ·60 in tubercular disease, and one of ·53 in disorders of the digestive system. In very few orders has an increase occurred, the most noticeable being in affections of the nervous and absorbent systems; these, however, were but very slight.

Examining into the invaliding in quinquennial periods of service, it is observed that in the first five years, the average strength (taken from the General Annual Return of the Army for 1883) being 53,481, the ratio of invaliding per 1,000 was 18·31; from 5 to 10 years service, average strength being 14,764, it was 19·17 per 1,000; from 10 to 15 years service, average strength 7,902, it was 23·28 per 1,000; from 15 to 20 years service, with an average strength of 7,585, the rate amounted to 43·64 per 1,000; and over 20 years service, average strength 2,290, to 30·56 per 1,000. It is found, therefore, that in the first two quinquennial periods there is no great increase in the invaliding rate, in the third period the increase is more marked, and in the fourth it is considerable, owing to the number of worn-out soldiers discharged the service in this manner, the average strength being small; over 20 years' service the rate declined again, the strength and number invalided being both much reduced.

Out of the total number invalided, 979, or 53 per cent., were in the first quinquennial period of service, when the ratio of invaliding per 1,000 of strength was lowest; this is due to the average strength in the period being considerably more than half the total strength; the per-centage of invalided in the second period was 15, in the third 10, in the fourth 18, and over 20 years service 4.

During the first year of service 318 men were discharged by invaliding, being in the proportion of 17 per cent. of the total number of invalided. The average strength of men under one year's service was 25,258, the ratio of invaliding therefore equalled 12·6 per 1,000, showing a decrease of 4·2 on that of the preceding year. Among the chief causes of invaliding under one year's service were heart disease 71 cases, mental affections 53, epilepsy 32, and phthisis pulmonalis 29 cases. The rate of invaliding for cardiac diseases in that period was 2·80 per 1,000, the total invaliding rate for this cause being 3·32. Invaliding on account of mental disease was relatively more frequent in the first year of service than in the total period of service, the ratio for the former being 2·09, and the latter 1·10 per 1,000. The rate of invaliding for epilepsy was, in the first year of service, 1·26, and in total service 1·15 per 1,000, the difference being only slight, though in the previous year it was

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considerable. Phthisis pulmonalis caused an invaliding rate of 1·14 per 1,000 among men under one year's service, but for the whole period of service one of 3·20 per 1,000 is observed.

With regard to the different ages at which invaliding took place it is observed that the average strength of men under 20 years of age (taken from the Return above quoted) being 17,482, the ratio of invaliding was 8·69 per 1,000; over 20 but under 25 years of age, average strength 35,690, the rate was 20·14; over 25 but under 30 years of age, average strength 15,718, the rate was 22·33; over 30 but under 35 years of age, average strength being 8,875, the rate was 24·56; over 35 but under 40 years of age, average strength 6,484, the rate amounted to 46·88; and over 40 years of age with an average strength of 1,773 the ratio of invaliding reached 58·09 per 1,000. Examining these results it is observed that the ratio of invaliding per 1,000 in each quinquennial period increases as age is greater, and with rapidity as the later periods of service are approached.

The admissions, deaths, and average number constantly sick in the various military districts are shown in the following Table:—

Military Districts.	Average Annual Strength.	Admitted into Hospital.	Died.	Average Number constantly Sick.	Ratio per 1,000 of Mean Strength.			Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					Admitted to Hospital.	Died.	Constantly Sick.		
1. Northern -	8,486	7,860	62	429·27	926·2	7·30	50·59	18·46	19·93
2. Eastern - -	4,192	3,910	27	200·15	932·7	6·44	47·74	17·42	18·68
3. Western - -	5,195	4,459	25	249·26	858·3	4·81	47·98	17·51	20·40
4. Southern - -	7,302	6,106	53	346·45	836·2	7·25	47·44	17·32	20·71
5. Chatham - -	3,002	2,384	24	129·29	794·1	7·99	43·07	15·72	19·79
6. South Eastern -	6,408	5,470	43	325·13	853·6	6·71	50·74	18·52	21·69
7. Home - -	7,315	6,548	50	373·98	895·1	6·84	51·13	18·66	20·84
8. Woolwich -	4,399	2,689	29	188·10	611·3	6·59	42·76	15·60	25·53
9. Aldershot -	9,110	8,367	47	501·34	918·4	5·16	55·03	20·09	21·87
10. North British -	2,881	2,175	17	102·25	754·9	5·89	35·49	12·95	17·16
11. Channel Islands	1,325	1,193	5	60·68	900·4	3·77	45·79	16·72	18·56
12. Belfast - -	2,850	2,040	21	110·82	715·7	7·36	38·88	14·19	19·83
13. Dublin - -	7,859	7,854	51	459·75	999·3	6·48	58·47	21·35	21·35
14. Cork - -	8,312	5,565	39	267·36	669·5	4·69	32·16	11·74	17·54
15. Curragh - -	3,041	2,520	11	141·99	828·7	3·62	46·69	17·04	20·57
Detached from the Corps.	4,283	—	36	—	—	8·40	—	—	—
Total - -	85,960	69,140	540	3,885·82	846·5	*6·28	47·57	17·36	20·51
Average of 10 years 1873–82	—	—	—	—	831·4	7·73	41·82	15·26	18·36

* Calculated on strength, including men detached (4,283).

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In this table we observe that the highest ratio of admission to hospital per 1,000 of mean strength occurred in Dublin, and reached 999·3, or, in other words, very nearly every man was in hospital once during the year; this was also the case in the preceding year, the admission rate for which differs only fractionally from that of the year under report; the lowest rate, as in 1882, occurred in the Woolwich district, and was 611·3 per 1,000. Between these extremes are seen varying rates for the different districts, among the higher being the Northern, Eastern, and Aldershot districts and among the lower being the Cork, Belfast, and North British districts. Mortality ranged from 3·62 per 1,000 in the Curragh to 7·99 per 1,000 in the Chatham district; the Northern, Southern, and Belfast districts had also comparatively high rates, but the Cork, Channel Islands, and Western districts low ones. The highest rate of constantly sick, 58·47 per 1,000, occurred in the Dublin district, followed by 55·03 per 1,000 in Aldershot; the lowest rate, 32·16 per 1,000, is shown for the Cork district, the North British, 35·49, not being much in excess of it. The average sick time to each soldier amounted to 21·35 days in the Dublin district, but only to 11·74 days in the Cork district. Woolwich shows the longest average duration of each case of sickness, 25·53 days, and North Britain the shortest, 17·16 days. It may be observed that as in the previous year the Dublin district returns high rates of all kinds, and the Cork district comparatively low ones. In Chatham, where is noticed the highest death rate, the rates of sickness are not great.

The following table, compiled from the Principal Medical Officer's Returns shows the admissions, deaths, number of men invalided, and number constantly sick, from each arm of the service, with the ratios per 1,000 of the strength and the corresponding ratios for the previous 10 years :—

Arms of the Service.	Average Strength.	Admitted into Hospital.	Died.	Discharged as Invalids.	Average Number Constantly sick.	Annual Ratios per 1,000 of Strength.				Average of 10 Years 1873-82.			
						Admitted.	Died.	Invalided.	Constantly Sick.	Admitted.	Died.	Invalided	Constantly Sick.
Household Cavalry	1,226	722	3	29	41·04	588·9	2·45	23·65	33·47	644·3	5·69	18·15	25·27
Cavalry - -	9,316	8,378	37	211	471·78	899·3	3·97	22·65	50·64	897·2	6·35	32·33	35·64
Royal Artillery -	14,369	10,239	107	338	622·19	712·6	7·45	23·52	43·24	786·3	8·73	26 51	31·77
Royal Engineers -	2,819	1,588	24	29	89·64	563·3	8·51	10·29	31·80	*317·1	7·09	17·99	†9·63
Foot Guards -	4,655	4,927	32	68	285·93	1058·4	6·87	14·61	61·42	896·1	7·41	23·71	37·19
Infantry - -	33,750	30,367	190	821	1744·05	899·8	5·63	24·32	51·67	817·8	7·25	27·62	31·59
Regimental Depôts	10,758	9,859	120	293	431·75	916·4	11·15	27·23	40·13	883·2	11·83	41·05	29·70
Garrison Staff and Departments.	4,784	3,060	27	57	199·44	639·6	5·64	11·91	41·69	*345 7	8·50	15·14	†13·02

* For six years only. † For four years only.

From the above table is seen that the rates of admission and constantly sick were highest in the Foot Guards, 1058·4 and 61·42 per 1,000, respectively, and lowest, 563·3 and 31·80, in the Royal Engineers. The highest rate of mortality occurred in Regimental Depôts, 11·15, and the lowest, 2·45 per 1,000, in the Household Cavalry.

Invaliding was greatest in Regimental Depôts, the rate being 27·23 per 1,000, and the lowest, 10·29 per 1,000, in the Royal Engineers. Comparing these results with those in the previous year it is observed that, though the rates are not identical in each case, their general tendency is the same; and in comparison with the average results of ten years this is also the case, except that the admission rate for the Cavalry is a trifle higher than that for the Foot Guards, and the invaliding in Staff and Departments is lower than in the Royal Engineers.

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As compared with the results for the previous year a decrease of admission rate has occurred in the Household Cavalry, Engineers, and Infantry, but an increase is observed in all other arms of the service. With regard to rates of mortality an increase is noticed in that for Regimental Depôts, and, to a fractional extent, in those of the Engineers and Artillery, but in all other arms a decrease has occurred. The number of men constantly sick in the Household Cavalry, Artillery, and Regimental Depôts was reduced; in all the remainder, however, an increase is observed. Invaliding shows a decreased rate, as compared with the preceding year, in every arm of the service, and, with the exception of those of the Household Cavalry and the Royal Engineers, all the invaliding rates are lower than those of the corresponding arms of the service for the decennial average.

The most important of the health statistics of the various corps which served in the United Kingdom during the year will be found in Abstract XLI.

In Abstract P. are given tables showing the admissions and deaths in the different classes and orders of diseases among officers, women, and children, compiled from the returns of Principal Medical Officers.

Officers.—In an average annual strength returned as 3,493, there were 1,117 attacks of illness and 12 deaths recorded, being in the annual ratios of 319·8 and 3·44 per 1,000 respectively. The rate of prevalence of sickness exceeds that of the preceding year by 9·2, but the rate of mortality shows a decrease of 1·20 per 1,000.

In the *febrile group* of diseases there were 140 attacks of illness, equal to an annual rate of 40·0 per 1,000, which is greater than in the previous year by 3·5. Scarlet fever occurred in 10 cases, and other eruptive fevers in 9. Eleven attacks of enteric fever and 4 deaths are returned, being in the ratios of 3·1 and 1·14 per 1,000 respectively, the former being fractionally greater and the latter less than the corresponding rates in 1882. The cases occurred principally in the Dublin, Southern, and Cork districts. The cases of other continued and paroxysmal fevers and of other diseases of this group were not numerous, and there was no death.

In the *constitutional* group rheumatism caused most of the attacks of illness, 23·8 per 1,000; syphilis a few cases in each form; and in tubercular affections one death occurred from phthisis pulmonalis.

Among *local affections,* diseases of the nervous system caused 27 attacks, or 7·7 per 1,000, the cases were mostly slight, but one death is returned from paralysis; the rates of prevalence of respiratory affections 47·8 per 1,000, and of digestive affections 63·3, show an increase, equal to 18·3 and 12·5 per 1,000 respectively. One death occurred from pneumonia and one from hepatitis. Urinary affections show a slight decrease, but two deaths occurred from Bright's disease.

The number of instances of local injury were 207, or 59·3 per 1,000, being higher than the rate in the previous year by 8·0 per 1,000.

One death is returned from asphyxia by drowning, an officer having committed suicide by drowning himself in the Regent's Canal while in a state of temporary insanity; and one death from gunshot wound, *suicidal,* took place in Dublin, the verdict of the coroner's jury in this case also was one of "temporary insanity."

Women.—The average annual strength is returned as 9,088, the number of attacks of illness 3,453 (exclusive of cases of parturition 1,014), and the number of deaths 57, being in the annual ratios of 380·0 and 6·27 per 1,000. Compared with the results in the previous year, a decrease of 59·2 per 1,000 is observed in the rate of prevalence of sickness, and one of 1·83 in that of mortality.

In the *febrile group* of diseases 161 attacks are returned, being at the rate of 17·7 per 1,000, and 5 deaths, or ·55 per 1,000. Among the admissions were 1 case of small-pox, which occurred at Pembroke Dock, 18 of measles, and 6 of scarlet fever, all of which recovered. Enteric fever was the cause of 7 attacks and three deaths; the cases occurred in various districts. Other continued fevers caused 43 attacks, and paroxysmal fevers 36 and one death. Other diseases of this group show 45 cases, among which were 2 of puerperal fever, one of which was fatal; 7 of diphtheria, 6 cases occurring in Woolwich; and 16 of erysipelas. *Constitutional affections* numbered 352 cases, or at the rate of 38·7 per 1,000, and 20 deaths, or 2·20 per 1,000. One half of the

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attacks were due to rheumatism in some form, and 115 cases appear under the head of tubercular affections, 106 being returned as phthisis pulmonalis. Among other diseases of this group appear one case of scurvy and 4 of cancer. Three deaths are shown to have been caused by acute rheumatism, and 17 by phthisis pulmonalis.

Under *local diseases* those of the nervous system caused 211 attacks, or 23·2 per 1,000, and 3 deaths. The cases include 161 of neuralgia, 18 of epilepsy, and 5 of mental disease. The deaths were due to encephalitis, apoplexy, and embolism of the cerebral arteries. Circulatory diseases numbered 49, or 5·4 per 1,000, and 9 deaths, 6 of the latter being due to valve disease of the heart, and one to aneurism of the aorta, pericarditis, and syncope respectively. Respiratory affections caused 515 cases, at the rate of 56·7 per 1,000, and 5 deaths, the cases were principally bronchial affections, but 20 of pneumonia, 7 of pleurisy, and 3 of laryngitis are returned. The fatal cases were 2 pneumonia, 2 bronchitis, and 1 asthma. Disorders of the digestive system caused the most sickness, 871 cases, or 95·7 per 1,000, and 6 deaths. The cases were of a varied character, but a very large proportion were due to dyspepsia and tonsillitis; the deaths resulted from hepatic affections, 2 cases, peritonitis 3, and dysentery 1. Urinary affections caused but few attacks; there was, however, one death from Bright's disease. Under affections of the generative system 426 cases, or at the rate of 47·0 per 1,000, are shown, the deaths numbering 7; 190 of these cases and 6 of the deaths were dependent on affections connected with pregnancy and parturition, and are in the ratios of 21·0 and ·66 per 1,000 respectively. Among the deaths were 2 cases metro-peritonitis, 2 of embolism, and 1 of hæmorrhage. The cases included 10 of premature labour, 107 of abortion, 17 of hæmorrhage, and 2 of puerperal mania. Debility caused 564 cases, and one death is shown under this head.

Children.—In an average annual strength returned as 15,798, the attacks of illness numbered 5,873, and the deaths 362, being in the annual ratios of 371·8, and 22·91 per 1,000 respectively. Compared with the results for the preceding year, a decrease of 118·4 per 1,000 is observed in the rate of prevalence of sickness, and in that of mortality one of 3·88 per 1,000. The decreased prevalence of measles during the year accounts in great measure for the diminution in both these rates.

In the *febrile group* of diseases there were 1,489 attacks of illness and 62 deaths, being in the annual rates of 94·3 and 3·92 per 1,000. Of these, measles accounts for 595 attacks and 9 deaths, or 37·7 and ·57 per 1,000 respectively, as compared with 114·5 and 1·67 per 1,000 in the previous year; the attacks and mortality from scarlet fever, 14·2 and 1·20 per 1,000, show only fractional differences as compared with the corresponding rates in 1882. Enteric fever is returned in eight instances with one death, as against six cases, none fatal, in the former year. There was an increase in prevalence of diphtheria, 38 cases being returned as against 12 in 1882. The chief outbreaks were in Woolwich and Aldershot, in the former place there were 6 cases among women and 15 among children, and in the latter, 1 case among women and 9 cases in children. In Woolwich the disease was not confined to any particular part of the garrison and the cases came from different localities. In Aldershot the cases occurred both in the South Camp and permanent barracks. The mortality of the disease among children was, however, relatively less than in the previous year, only 9 cases, or 24 per cent., of attacks proving fatal, as against 6 cases, or 50 per cent., in 1882.

The illness from *constitutional affections* was not great, tubercular affections causing the greatest number of attacks, 78, with fatal results in 20 instances, 13 of which are returned as tabes mesenterica, the remainder as phthisis pulmonalis or hæmoptysis.

Among *local diseases*, under the head of diseases of the nervous system are shown 211 attacks and 106 deaths, equal to rates of 13·3 and 6·71 per 1,000 respectively; the principal causes of sickness and mortality were meningitis and infantile convulsions. Diseases of the circulatory system caused only 6 attacks of illness, and 1 death. Respiratory diseases caused 1,622 attacks and 73 deaths, or 102·7 and 4·62 per 1,000 respectively. Bronchial affections caused the greater part of the sickness and mortality, croup and pneumonia

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adding somewhat to both. Digestive affections caused 1,156 attacks of illness and 45 deaths, being at the rates of 73·2 and 2·85 per 1,000 respectively, the bulk of the attacks and also of the deaths were due to diarrhœa and dentition.

Under the head of *general injuries* are returned three fatal cases, one of burn, one of asphyxia from overlying, and one of asphyxia from plugging of the passages. 212 cases of local injury are returned, burns and scalds being the most numerous, followed by wounds, contusions, fractures, &c. Two deaths occurred, one from contusion and the other from concussion of the brain.

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The following table shows the condition as to vaccination of all recruits found fit for the service during the year, both those inspected by Army Medical Officers only, and those who, having been primarily inspected by Civil Medical Practitioners, were approved, on secondary inspection, by Medical Officers. The total number of recruits thus found fit, 36,035, includes 194 who were subsequently discharged within three months of their enlistment, as unlikely to make efficient soldiers, under the provisions of section XIX., para. 255*g*, Queen's Regulations and Orders for the Army. The actual number of recruits finally approved was 35,841.

The proportions per 1,000 of each condition is also shown in the table.

——	Number of Recruits found fit for the Service.	Proportion per 1,000.
Had marks of vaccination - -	33,127	919·3
Had marks of small-pox - -	1,042	28·9
Had neither marks of small-pox nor marks of vaccination - -	1,819	50·5
Not stated - - - -	47	1·3
Total - -	36,035	1000·0

As compared with the results for the previous year, a decrease of 8·7 per 1,000 is observed among recruits bearing marks of vaccination, but an increase of 4·0 per 1,000 in those who had marks of small-pox, and one of 3·4 per 1,000 in those who had neither marks of small-pox or vaccination.

The following tables, compiled from the annual returns, show the number of vaccinations performed during the year, with the proportions per 1,000 of successful or modified vaccinations and failures when vaccinated with fresh or preserved lymph:—

The first table shows the vaccinations performed on recruits only, the second those on soldiers other than recruits, and the third comprises both the foregoing, or the total amount of vaccination in the army among the soldiers.

The two former tables are inserted this year for the first time; no comparison, therefore, can be drawn with the previous or other years, but the total amount of vaccination, shown in the third table, is compared with the results in the previous year.

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Results.	Vaccinated during the period.						Proportion per 1,000.					
	Arm to Arm.		From Preserved Lymph.		Total,		Arm to Arm.		From Preserved Lymph.		Total.	
	Primary* Vaccination.	Re-Vaccination.	Primary Vaccination.	Re-vaccination.	Primary Vaccination.	Re-vaccination.	Primary Vaccination.	Re-vaccination.	Primary Vaccination.	Re-vaccination.	Primary Vaccination.	Re-vaccination.
TABLE I.—*Recruits.*												
A perfect vaccine pustule	213	5,513	358	7,220	571	12,733	714·8	459·3	447·5	390·0	520·0	417·2
A modified vaccine pustule	66	4,912	308	5,109	374	10,021	221·5	409·2	385·0	275·9	340·6	328·4
A failure	19	1,579	134	6,186	153	7,765	63·7	131·5	167·5	334·1	139·4	254·4
Total	298	12,004	800	18,515	1,098	30,519	1,000·0	1,000·0	1,000·0	1,000·0	1,000·0	1,000·0
TABLE II.—*Soldiers other than Recruits.*												
A perfect vaccine pustule	—	588	1	214	1	802	—	263·1	58·8	248·0	52·6	258·9
A modified vaccine pustule	1	1,028	8	343	9	1,371	500·0	460·0	470·6	397·4	473·7	442·5
A failure	1	619	8	306	9	925	500·0	276·9	470·6	354·6	473·7	298·6
Total	2	2,235	17	863	19	3,098	1,000·0	1,000·0	1,000·0	1,000·0	1,000·0	1,000·0
TABLE III.—*Soldiers and Recruits.*												
A perfect vaccine pustule	213	6,101	359	7,434	572	13,535	710·0	428·4	439·4	383·6	512·1	402·6
A modified pustule	67	5,940	316	5,452	383	11,392	223·3	417·2	386·8	281·4	342·9	338·9
A failure	20	2,198	142	6,492	162	8,690	66·7	154·4	173·8	335·0	145·0	258·5
Total	300	14,239	817	19,378	1,117	33,617	1,000·0	1,000·0	1,000·0	1,000·0	1,000·0	1,000·0

* By primary vaccination is understood the first vaccination of individuals on whom the operation has never previously been satisfactorily performed.

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The entire number of men vaccinated during the year amounts to 34,734 as compared with 20,318 in the preceding year. The increase is due to the greater number of recruits, 31,617 vaccinations out of the total, 34,734, being those of recruits, the remainder, 3,117, being those of soldiers other than recruits.

Taking the vaccinations of both classes of soldiers together, as in Table 3, and comparing them with the results in the previous year, it is observed that in arm to arm primary vaccination a decrease of 89·5 per 1,000 has taken place in the proportion of modified vaccine pustules, and an increase of 48·5 and 41·0 per 1,000 respectively in the proportions of perfect vaccine pustules and of failures.

In arm to arm re-vaccination an increase of 34·4 and 16·8 per 1,000 respectively has occurred in the proportions of modified vaccine pustules and of failures, but a decrease in that of perfect vaccine pustules of 51·2 per 1,000.

In primary vaccination from preserved lymph an increase of 40·0 per 1,000 has taken place in the proportion of perfect vaccine pustules, and one of 45·2 in that of modified vaccine pustules, these being counterbalanced by a decrease of 85·2 per 1,000 in the proportion of failures. In re-vaccination from preserved lymph a decrease of 42·5 per 1,000 has taken place in the proportion of modified vaccine pustules, but an increase of 36·2 per 1,000 is observed in the proportion of perfect vaccine pustules and one of 6·3 per 1,000 in that of failures.

In the total results of primary vaccination an increase of 51·6 and one of 8·0 per 1,000 have taken place in the proportions of perfect and of modified vaccine pustules respectively, these being counterbalanced by a decrease of 59·6 per 1,000 in the proportion of failures.

The differences in the total results of re-vaccination compared with those in 1882 are very slight, the proportion of perfect vaccine pustules showing an increase of 6·4 per 1,000, that of modified vaccine pustules a decrease of 6·7 per 1,000, and that of failures a fractional increase, ·3 per 1,000.

Women.—Sixteen cases of primary vaccination and 251 of re-vaccination are returned, as compared with 1 and 54 respectively in the preceding year. In primary vaccination' the proportion of perfect vaccine pustules was at the rate of 750 per 1,000, and of modified results and of failures each 125 per 1,000. In re-vaccination perfect vaccine pustules resulted in the proportion of 541·8 per 1,000, being an increase of 152·9 on the previous year, while modified vaccine pustules and failures were at the rates of 239·1 and 219·1 per 1,000, being lower by 131·3 and 21·6 per 1,000.

Children.—2,926 children were primarily vaccinated, 2,651 cases being successful and 275 failures, being in the proportions of 906·0 and 94·0 per 1,000 respectively, the proportion of successful cases showing a slight decrease, 11·7 per 1,000, and that of failures a similar increase, as compared with the results for the preceding year. Out of 1,637 arm to arm primary vaccinations, 1,574, or 961·5 per 1,000, were successful, and the remainder unsuccessful; and of 1,289 primary vaccinations with preserved lymph, 1,077, or 835·5 per 1,000 succeeded, while the remainder failed.

Re-vaccination was performed in 209 cases, with successful results in 157, or 751·2 per 1,000, and failures in 52, or 248·8 per 1,000, the former showing a decrease of 113·4 per 1,000, and the latter a similar increase as compared with the corresponding results in 1882.

Out of 86 arm to arm re-vaccinations, 76, or 883·7 per 1,000, were successful, the remainder being failures, and out of 123 re-vaccinations with preserved lymph, 81, or 658·5 per 1,000, were successful, while the remainder failed.

The total number of vaccinations performed on children is therefore 3,135, with successful results in 2,808 instances, or in the proportion of 895·7 per 1,000 cases.

Small-pox.—Among men there were six cases and no deaths in the United Kingdom. In India there were 105 cases and nine deaths (86 cases and seven deaths occurring in Bengal alone, where the disease was epidemic); and in the colonies there were 14 cases and 2 deaths. Among women one case, which recovered, occurred in the United Kingdom. In India there were 17 cases and 3 deaths (13 cases and all the deaths occurring in Bengal), and in the colonies four cases and no deaths. Among children there were no cases in the United

Kingdom, but 13 occurred in India, with two deaths, and three cases occurred in the colonies, none being fatal. The total numbers are, among men, 125 attacks and 11 deaths; among women 22 attacks and three deaths; and among children 16 attacks and two deaths.

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The ratios of attacks to strength are therefore: for men, ·75 per 1,000; women 1·62, and children ·68 per 1,000, and the ratios of mortality to strength is, for men ·07, for women ·22, and for children ·08 per 1,000. As noticed last year, it appears that women are far more liable to attack than men or children. This is probably in some measure due to neglect of vaccination.

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On the Recruiting of the Army.

The number of recruits inspected during the year, as gathered from the Annual Returns, was 59,436; of which 35,841 were passed as fit for the service and 23,595 were rejected as unfit, being in the ratios of 603·02 and 396·98 per 1,000 respectively.

Out of the total number inspected 49,841 were examined by Army Medical Officers only, of these 29,899, or 599·89 per 1,000, were found fit for service, and 19,942, or 400·11 per 1,000, were rejected as unfit.

The remainder of the total number inspected, 9,595, were primarily examined by Civil Medical Practitioners, and 1,526, or 159·04 per 1,000, were then rejected by them, the rest being referred to Army Medical Officers for secondary inspection, with the result that 1,933 more men, or 201·46 per 1,000, were rejected, leaving 6,136, or 639·50 per 1,000, as approved.

To the total number of rejections thus obtained must be added the rejections of 194 recruits, equal to 3·26 per 1,000 of the total number inspected, who were found medically unfit for service within three months of their enlistment, according to Section XIX., paragraph 255*g*, Queen's Regulations and Orders for the Army.

As compared with the return for the previous year the total proportion of men passed fit for the service is greater by 27·78 per 1,000, the total proportion of rejections being consequently less by the same amount.

The following table shows the number inspected, the number rejected, and the ratios of rejections per 1,000 examined:—

TABLE I.

Examined by	Number of Recruits Inspected.	Number Rejected				Total found fit for service.
		On Inspection.	On Secondary Inspection by Army Medical Officers.	Unfit within three months of enlistment.	Total Rejected.	
Army Medical Officers	49,841	19,942	—	194	23,595	35,841
Civil Medical Practitioners	9,595	1,526	1,933			
Total	59,436	21,468	1,933	194	23,595	35,841

Examined by	Ratio of Rejections per 1,000 inspected.				Ratio of those found fit per 1,000 Inspected.
	On Inspection.	On Secondary Inspection by Army Medical Officers.	Unfit within three months of enlistment.	Total Rejected.	
Army Medical Officers	400·11	—	3·26	396·98	603·02
Civil Medical Practitioners	159·04	201·46			
Total	361·20	201·46	3·26	396·98	603·02

The proportion of rejections by Army Medical Officers is less than that for the previous year by 34·92 per 1,000, while the proportion of rejections by Civil Medical Practitioners is greater by 19·22 per 1,000.

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The native countries of recruits, the ratios of rejections, and the proportion per 1,000 furnished by each country are given in the following table:—

TABLE II.

Native Countries of Recruits.	Examined by Army Medical Officers.		Primarily Examined by Civil Medical Practitioners.		Rejected on Secondary Inspection.	Unfit within three months of enlistment.	Total.		Ratio Rejected per 1,000 Inspected.	Proportion per 1,000 Recruits furnished by each Country.
	Inspected.	Rejected.	Inspected.	Rejected.			Primarily Inspected.	Rejected at Primary and Secondary Inspections and as unfit within three months of enlistment.		
England and Wales	38,141	15,348	7,793	1,320	1,601	168	45,934	18,437	401·38	773
Scotland - -	4,658	1,976	727	38	133	7	5,385	2,154	400·01	91
Ireland - -	6,452	2,430	1,006	155	191	17	7,458	2,793	374·50	125
British Colonies and Foreign Countries -	590	188	58	2	8	—	648	198	305·56	11
Not stated -	—	—	11	11	—	2	11	13	—	—
Total -	49,841	19,942	9,595	1,526	1,933	194	59,136	23,595	396·98	1,000

As compared with the results for the previous year, the ratio of rejections of recruits born in England and Wales is lower by 23·99 per 1,000, of those born in Ireland by 69·20, and of those born in British Colonies and Foreign countries by 62·48 per 1,000, but of recruits born in Scotland the ratio of rejections is higher by 5·97 per 1,000. The proportion per 1,000 of recruits born in England and Wales is higher than that for the preceding year by 36, of those born in Scotland lower by 15, of those born in Ireland by 20, and of those born in British Colonies and Foreign countries by 1.

The following table shows the number of recruits inspected for each arm of the service, the number rejected, the ratios of rejections, and the proportion for each arm of the service per 1,000 inspected:—

TABLE III.

Arms of the Service.	Examined by Army Medical Officers.		Primarily Examined by Civil Medical Practitioners.			Unfit within three months of enlistment.	Total.		Ratio of Rejections per 1,000 of Recruits Inspected for each Arm of the Service.	Proportion for each Arm of the Service per 1,000 inspected.
	Inspected.	Rejected.	Inspected.	Rejected at primary Inspection.	Rejected at secondary Inspection.		Inspected.	Rejected.		
Household Cavalry -	322	123	18	1	6	—	340	130	382·35	6
Cavalry of the Line -	4,568	1,744	553	80	134	10	5,121	1,968	384·30	86
Royal Artillery -	5,396	2,096	1,046	131	213	24	6,442	2,464	382·49	108
Royal Engineers -	1,062	377	163	20	33	2	1,225	432	352·65	21
Foot Guards - -	2,191	758	889	93	111	7	3,080	969	314·61	52
Infantry Regiments -	34,766	14,183	6,850	1,184	1,418	150	41,616	16,935	406·93	700
Departmental Corps	1,536	661	76	17	18	1	1,612	697	432·38	27
Total - -	49,841	19,942	9,595	1,526	1,933	194	59,436	23,595	396·98	1,000

As compared with the results for the previous year, the ratio of rejections of recruits is lower for the Household Cavalry by ·49 per 1,000 inspected, or the Cavalry of the Line by 3·08, for the Royal Artillery by 14·48, for the

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Royal Engineers by 47·75, and for the Infantry regiments by 38·22 per 1,000, while for the Foot Guards the ratio of rejections is higher by 35·53, and for the Departmental Corps by 14·96 per 1,000. The proportion of recruits for each arm of the service per 1,000 inspected is lower than in the preceding year for the Household Cavalry by 1, for the Royal Artillery by 35, for the Royal Engineers by 1, and for the Departmental Corps by 10, but is higher for the Foot Guards and Infantry Regiments by 15 and 32 respectively, while for the Cavalry of the Line the proportion remains the same.

The occupations of recruits previous to enlistment, the ratio rejected per 1,000 inspected in each group of occupations, and the proportion of each group in 1,000 recruits inspected are shown in the following table:—

TABLE IV.

Occupations of Recruits.	Number Inspected.	Number Rejected.	Ratio rejected per 1,000 Inspected.	Proportion of each Group in 1,000 recruits Inspected.
1. Labourers, Servants, Husbandmen, &c.	35,970	14,614	406·28	605
2. Manufacturing Artizans (as Clothworkers, Weavers, Lace Makers, &c.).	8,636	3,556	411·76	145
Mechanics employed in Occupations favourable to physical development (as Smiths, Carpenters, Masons, &c.).	9,388	3,653	389·11	158
4. Shopmen and Clerks - -	3,203	1,304	407·13	54
5. Professional Occupations, Students, &c.	645	187	289·90	11
6. Boys under 17 years of age -	1,581	267	168·88	27
Not stated - - -	13	14	—	—
Total - - -	59,436	23,595	396·98	1,000

As compared with the results for the previous year the proportion of rejections is lower in all classes of occupation, being in class 1, labourers, &c., lower by 16·22 per 1,000, in class 2, manufacturing artizans, by 57·03, in class 3, mechanics, by 39·10, in class 4, shopmen and clerks, by 46·31, in class 5, professional occupations, by 18·06, and in class 6, boys under 17 years of age, by 15·48 per 1,000.

In 1,000 recruits inspected, as compared with the results for the previous year, the proportions of labourers and artizans are higher by 10 and 7 respectively, but the proportion of mechanics is lower by 1, of shopmen and clerks by 13, of professional occupations by 2, and of boys under 17 years of age by 1.

The next table shows the state of education in 57,847 of the recruits inspected; information is not available for the remainder (1,589) of the total number inspected.

TABLE V.

—	Numbers Inspected.	Proportion per 1,000.
Well educated - - - -	4,553	78·7
Able to write - - - -	41,608	719·3
Able to read only - - - -	4,507	77·9
Unable to read - - - -	7,179	124·1
Total - - - -	57,847	1,000·0

As compared with the state of education of recruits in the preceding year we find that there is an increase of 2·1 per 1,000 in the proportion of recruits well educated, and an increase of 35·6 in those able to read and write, but in the proportion of those able to read only there is a decrease of 23·7 per 1,000, and of those unable to read, a decrease of 14·0 per 1,000.

Table No. 6 shows the number of recruits rejected in 1883, with the causes of rejections arranged in classes, and the ratio per 1,000 in each class.

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TABLE VI.

Causes of Rejections, in Classes.	Examined by Army Medical Officers.		Examined by Civil Medical Practitioners.				Unfit within first three months of service.	Total examined.	
	49,841		9,595					59,436	
	Number Rejected.	Ratio per 1,000 Rejected.	Number Rejected by Civil Medical Practitioners at Primary Inspection.	Ratio per 1,000 Rejected.	Number Rejected by Army Medical Officers at Secondary Inspection.	Ratio per 1,000 Rejected.		Total Number Rejected.	Ratio per 1,000 Rejected.
1. Syphilis	471	9·45	63	6·57	48	5·00	1	583	9·81
2. Scrofula	140	2·81	40	4·17	5	·52	—	185	3·11
3. Phthisis	106	2·13	16	1·67	7	·73	3	132	2·22
4. Impaired Constitution	350	7·02	18	1·87	36	3·75	—	404	6·80
5. Other General Diseases	182	3·65	25	2·60	8	·83	7	222	3·73
6. Diseases of Nervous System.	101	2·03	4	·42	6	·63	16	127	2·14
7. Weakness of Intellect	80	1·60	2	·21	13	1·35	9	104	1·75
8. Defective Vision	1,813	36·38	147	15·32	171	17·82	—	2,131	35·85
9. Diseases of Eyes and Eyelids.	102	2·05	21	2·19	16	1·67	1	140	2·36
10. Diseases of Nose and Mouth.	29	·58	4	·42	5	·52	1	39	·66
11. Disease of Ears	29	·58	1	·10	4	·42	—	34	·57
12. Deafness	74	1·48	5	·52	4	·42	2	85	1·43
13. Impediment of Speech	71	1·42	1	·10	10	1·04	2	84	1·41
14. Disease of Heart	980	19·66	98	10·21	88	9·17	14	1,180	19·85
15. Disease of Arteries (Aneurism).	6	·12	—	—	—	—	—	6	·10
16. Disease of Veins (Varix)	742	14·89	127	13·24	67	6·98	3	939	15·80
17. Disease of Lungs (except Phthisis).	103	2·07	24	2·50	6	·63	4	137	2·31
18. Loss or Decay of many Teeth.	561	11·26	14	1·46	48	5·00	—	623	10·48
19. Hernia	375	7·52	65	6·77	31	3·23	8	479	8·06
20. Laxity of Abdominal Rings	120	2·41	13	1·35	6	·63	1	140	2·36
21. Hæmorrhoids	103	2·07	6	·63	15	1·56	—	124	2·09
22. Diseases of the Urinary Organs.	26	·52	12	1·25	5	·52	3	46	·77
23. Varicocele	837	16·79	177	18·45	71	7·40	1	1,086	18·27
24. Other Diseases of the Genital Organs (not Syphilitic).	91	1·83	19	1·98	5	·52	—	115	1·93
25. Defects of Upper Extremities, from Fracture, Contraction, Luxation, &c.	334	6·70	19	1·98	42	4·38	6	401	6·75
26. Defects of Lower Extremities, from Fracture, Contraction, Luxation, &c.	649	13·02	79	8·23	76	7·92	11	815	13·71
27. Flat Feet	453	9·09	33	3·44	52	5·42	—	538	9·05
28. Diseases of Joints	86	1·72	5	·52	12	1·25	—	103	1·73
29. Other Affections of Bones and Muscles.	186	3·73	6	·63	12	1·25	2	206	3·47
30. Ulcers, Wounds, and Cicatrices.	188	3·77	14	1·46	12	1·25	—	214	3·60
31. Other Affections of the Cutaneous System.	146	2·93	32	3·33	18	1·87	—	196	3·30
32. Malformation of Ears	2	·04	—	—	—	—	—	2	·03
33. Malformation of Nose and Mouth.	21	·42	—	—	4	·42	—	25	·42
34. Malformation of Chest and Spine.	527	10·57	49	5·11	42	4·38	—	618	10·40
35. Malformation of Urinary or Genital Organs.	8	·16	4	·42	2	·21	—	14	·24
36. Marks of Punishment, or of letter D. or B.C.	4	·08	—	—	—	—	—	4	·07
Under Height	1,205	24·18	22	2·29	139	14·49	1	1,367	23·00
Under Chest Measurement.	6,678	133·99	177	18·45	588	61·28	23	7,466	125·61
Under Weight (Muscular Tenuity and Debility).	1,368	27·45	172	17·93	182	18·97	7	1,729	29·09
40. Apparent Age not in accordance with General Order.	592	11·88	11	1·15	77	8·03	—	680	11·44
41. Not likely to become an efficient soldier.	—	—	—	—	—	—	68	68	1·14
42. Over height	3	·06	1	·10	—	—	—	4	·07
Total Rejected	19,942	400·11	1,526	159·04	1,932	201·46	194	23,595	396·98

United Kingdom.

The proportions of rejections for the various causes differ only slightly in each instance from those given in the return for the previous year, except in the class of under chest measurement, in which there is a decrease of 19·71 per 1,000, and of under height, in which a decrease of 6·94 per 1,000 is observed.

The cause of rejection, "not likely to become an efficient soldier," it will be seen, shows 68 rejections, these were men who were discharged during the first three months of service, and were returned as such.

The proportion of rejections for defective chest measurement by Army Medical Officers at primary inspection was 133·99, and that by Civil Practitioners 18·45 per 1,000; in rejections for under height, the proportion by Army Medical Officers was 24·18, and by Civil Practitioners 2·29 per 1,000; in the classes "under weight" and "apparent age not in accordance with General Order," considerable differences are also noticed, and in a lesser degree in certain other classes of rejections.

Ages, Heights, Weights, and Chest Measurements of Recruits.

The following table shows the ages of 58,497 recruits as given at their primary inspection, and the proportion of each age per 10,000. Information is not available for the balance of the total number inspected, the returns from Civil Medical Practitioners not being complete.

TABLE VII.

Ages.	Numbers Inspected			Proportion per 10,000		
	By Army Medical Officers.	By Civil Medical Practitioners.	Total.	Inspected by Army Medical Officers.	Inspected by Civil Medical Practitioners.	Total.
Boys under 17 years	1,429	96	1,525	287	111	261
From 17 to 18 „	897	27	924	180	31	158
„ 18 to 19 „	12,700	1,843	14,543	2,548	2,129	2,486
„ 19 to 20 „	16,514	3,297	19,811	3,313	3,809	3,387
„ 20 to 21 „	5,737	1,151	6,888	1,152	1,330	1,177
„ 21 to 22 „	4,296	729	5,025	862	842	859
„ 22 to 23 „	2,952	533	3,485	592	616	596
„ 23 to 24 „	2,344	421	2,765	470	486	472
„ 24 to 25 „	2,385	480	2,865	478	555	490
25 years and upwards	587	79	666	118	91	114
Total -	49,841	8,656	58,497	10,000	10,000	10,000

Omitting boys under 17 years of age, the total number of recruits whose ages are given is 56,972, giving the average age of recruits for the year as 19·71 years, which is less than the average age of recruits for the previous year by ·40.

As compared with the return for the preceding year, an increase has occurred in the proportion of recruits of the ages from 17 to 18 years, and from 18 to 19

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years, of 87 and 2,115 per 10,000, respectively; a decrease is noticed at all other ages, but most marked in that from 19 to 20 years, which is 1,665 per 10,000.

The next table shows the heights of 58,496 recruits, at their inspection, and the proportion per 10,000 at each height. Information was not forthcoming for the balance 940 of the total number inspected.

TABLE VIII.

Heights.	Numbers Inspected			Proportion per 10,000		
	By Army Medical Officers.	By Civil Medical Practitioners.	Total.	Inspected by Army Medical Officers.	Inspected by Civil Medical Practitioners.	Total.
ft. in. ft. in.						
Under 5 3 -	1,915	115	2,030	384	133	347
5 3 to 5 4 -	6,387	728	7,115	1,282	841	1,216
5 4 to 5 5 -	11,051	1,754	12,805	2,217	2,027	2,189
5 5 to 5 6 -	9,576	1,677	11,253	1,921	1,938	1,924
5 6 to 5 7 -	7,657	1,659	9,316	1,536	1,917	1,593
5 7 to 5 8 -	5,744	1,189	6,933	1,153	1,374	1,185
5 8 to 5 9 -	3,760	813	4,573	755	939	782
5 9 to 5 10 -	2,042	428	2,470	410	494	422
5 10 to 5 11 -	913	180	1,093	183	208	187
5 11 to 6 0 -	505	68	573	101	78	98
6 0 and upwards	291	44	335	58	51	57
Total -	49,841	8,655	58,496	10,000	10,000	10,000

Compared with the previous year the return shows an increase of 76 recruits under 5 feet 3 inches in height, one of 760 between 5 feet 3 inches and 5 feet 4 inches, and one of 137 between 5 feet 4 inches and 5 feet 5 inches, among 10,000 recruits inspected; but a decrease of 238 has occurred in recruits between 5 feet 5 inches and 5 feet 6 inches, of 250 between 5 feet 6 inches and 5 feet 7 inches, of 178 between 5 feet 7 inches and and 5 feet 8 inches, of 138 between 5 feet 8 inches and 5 feet 9 inches, of 108 between 5 feet 9 inches and 5 feet 10 inches, of 43 between 5 feet 10 inches and 5 feet 11 inches, of 5 between 5 feet 11 inches and 6 feet, and of 13 of 6 feet and upwards, among 10,000 recruits inspected.

Table No. 9 shows the weights of 49,722 recruits inspected by Medical Officers, and the proportion per 10,000 at each weight. Information of this nature is not given by Civil Medical Practitioners for recruits inspected by them, and the weights of 119 recruits inspected by Army Medical Officers are not recorded, being from certain stations where the standard scales and weights are not supplied.

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Table IX.

Weights.	Numbers Weighed.	Proportion per 10,000.
Under 100 lbs. - - - -	1,243	250
100 lbs. to 110 lbs. - - - -	1,723	346
110 „ to 120 „ - - - -	10,810	2,174
120 „ to 130 „ - - - -	16,968	3,413
130 „ to 140 „ - - - -	11,515	2,316
140 „ to 150 „ - - - -	5,036	1,013
150 „ to 160 „ - - - -	1,655	333
160 „ to 170 „ - - - -	576	116
170 „ and upwards - - -	196	39
Total - - - -	49,722	10,000

Compared with the return for the previous year an increase is observed of 176 recruits from 100 lbs. to 110 lbs. weight, of 886 from 110 lbs. to 120 lbs., and of 212 from 120 lbs. to 130 lbs. among 10,000 recruits whose weights have been recorded; a decrease is noticed of 6 recruits under 100 lbs. weight, of 611 from 130 lbs. to 140 lbs., of 392 from 140 lbs. to 150 lbs., of 195 from 150 lbs. to 160 lbs., of 56 from 160 lbs. to 170 lbs., and of 14 of 170 lbs. and upwards among 10,000 recruits whose weights have been recorded.

In table No. 10 is shown the chest measurements of 58,497 recruits, being all those inspected by medical officers, and 8,656 of those inspected by Civil Medical Practitioners. Information for the remaining 939 of the total inspected is not available.

Table X.

Chest Measurement.	Numbers Measured.			Proportion per 10,000.		
	By Army Medical Officers.	By Civil Medical Practitioners.	Total.	Measured by Army Medical Officers.	Measured by Civil Medical Practitioners.	Total.
Under 31 inches -	1,365	90	1,455	274	104	249
31 to 32 „ -	1,783	52	1,835	358	60	314
32 „ 33 „ -	6,428	418	6,846	1,290	483	1,170
33 „ 34 „ -	15,341	2,205	17,546	3,078	2,547	2,999
34 „ 35 „ -	14,599	3,568	18,167	2,929	4,122	3,106
35 and upwards -	10,325	2,323	12,648	2,071	2,684	2,162
Total -	49,841	8,656	58,497	10,000	10,000	10,000

In comparison with the similar return for 1882 there is an increase of 99 recruits between 31 inches and 32 inches, of 359 between 32 inches and 33 inches, and of 533 between 33 inches and 34 inches in 10,000 recruits inspected; but there is a decrease of 36 recruits under 31 inches, of 614 between 34 inches and 35 inches, and of 451 of 35 inches and upwards in 10,000 recruits inspected.

United Kingdom.

In the following tables Nos. 11, 12, and 13 are arranged in series according to age, the heights of 58,496 recruits, the weights of 49,722, and the chest measurement of 58,497 recruits.

The proportions for 10,000 of each height, weight, and chest measurement at each age are also given.

TABLE XI.

Heights of Recruits on Inspection by Army Medical Officers, and on Primary Inspection by Civil Medical Practitioners.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Totals at each Height.
ft. in. ft. in.											
Under 5 3	1,210	58	318	190	61	15	19	18	22	4	2,030
	81	—	16	10	2	1	1	2	1	1	
5 3 to 5 4	122	192	2,713	1,702	496	517	248	180	169	48	7,115
	4	8	384	184	45	41	23	22	12	5	
5 4 to 5 5	51	205	3,191	3,641	1,129	1,185	584	371	397	97	12,805
	3	9	479	681	209	131	102	60	65	15	
5 5 to 5 6	26	163	2,425	3,522	1,257	643	536	459	442	103	11,253
	—	5	342	706	212	126	104	80	85	10	
5 6 to 5 7	11	118	1,757	2,791	944	612	499	406	421	98	9,316
	3	2	283	644	238	166	124	88	95	16	
5 7 to 5 8	6	77	1,129	2,018	769	527	414	363	356	85	6,933
	3	2	172	483	175	114	75	66	91	8	
5 8 to 5 9	2	40	652	1,295	540	352	299	241	270	69	4,573
	2	1	99	314	145	70	60	51	62	9	
5 9 to 5 10	1	20	301	656	289	239	187	162	152	35	2,470
	—	—	57	172	52	45	22	33	41	6	
5 10 to 5 11	—	13	102	279	129	111	99	67	89	24	1,093
	—	—	8	64	39	20	12	12	18	7	
5 11 to 6 0	—	5	75	142	79	58	41	47	39	16	573
	—	—	3	20	18	8	6	3	8	2	
6 0 and upwards	—	6	37	78	44	37	23	30	28	8	335
	—	—	—	19	9	6	4	4	2	—	
Totals at each age and height	1,525	924	14,543	19,811	6,888	5,024	3,485	2,765	2,865	666	58,496

Heights of Recruits on Inspection by Army Medical Officers and on Primary Inspection by Civil Medical Practitioners.	Proportions per 10,000 of each Age at each Height.										Total Proportion per 10,000 at each Height.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
ft. in. ft. in.											
Under 5 3	8,466	628	230	101	91	32	57	72	80	75	347
5 3 to 5 4	826	2,164	2,129	952	785	1,111	778	730	632	796	1,216
5 4 to 5 5	354	2,316	2,523	2,283	1,043	2,620	1,969	1,559	1,613	1,682	2,189
5 5 to 5 6	171	1,818	1,903	2,134	2,143	1,531	1,836	1,949	1,839	1,697	1,924
5 6 to 5 7	92	1,299	1,403	1,734	1,716	1,547	1,738	1,787	1,801	1,712	1,593
5 7 to 5 8	59	855	895	1,262	1,371	1,276	1,403	1,552	1,560	1,396	1,185
5 8 to 5 9	26	444	516	812	994	840	1,030	1,056	1,159	1,171	782
5 9 to 5 10	6	216	246	418	495	565	600	705	674	616	422
5 10 to 5 11	—	141	76	173	244	261	319	286	373	465	187
5 11 to 6 0	—	54	54	82	141	131	143	181	164	270	98
6 0 and upwards	—	65	25	49	77	86	77	123	105	120	57
Total	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

United Kingdom.

Omitting boys, the highest proportion of recruits per 10,000 at any age and height is 2,620 at the age between 21 and 22 years, and at the height of 5 feet 4 inches to 5 feet 5 inches, the highest proportion in the previous year being 2,673 at the age between 18 and 19 years, but at the height of 5 feet 5 inches to 5 feet 6 inches.

TABLE XII.

Weights of Recruits on Primary Inspection by Army Medical Officers.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Totals at each Weight.
Under 100 lbs. -	1,180	28	19	9	3	1	1	—	1	1	1,243
100—110 lbs. -	166	152	855	385	75	36	22	17	13	2	1,723
110—120 „ -	63	324	4,786	3,466	726	717	268	228	182	50	10,810
120—130 „ -	16	252	4,706	6,658	1,892	1,339	872	555	567	111	16,968
130—140 „ -	3	98	1,675	4,198	1,854	1,179	886	746	709	167	11,515
140—150 „ -	—	26	492	1,342	816	676	561	470	508	145	5,036
150—160 „ -	—	9	98	298	232	236	234	211	268	69	1,655
160—170 „ -	—	6	35	89	98	75	74	89	85	25	576
Upwards of 170 lbs.	—	2	14	27	22	27	24	23	44	13	196
Totals at each age	1,428	897	12,680	16,472	5,718	4,286	2,942	2,339	2,377	583	49,722

Weights of Recruits on Primary Inspection by Army Medical Officers.	Proportions per 10,000 at each Age.										Total Proportion per 10,000 at each Weight.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
Under 100 lbs. -	8,263	312	15	5	5	2	3	—	4	17	250
100—110 lbs. -	1,163	1,695	674	234	131	84	75	73	55	34	346
110—120 „ -	441	3,612	3,775	2,104	1,270	1,673	911	975	766	858	2,174
120—130 „ -	112	2,809	3,711	4,042	3,309	3,124	2,964	2,373	2,385	1,904	3,413
130—140 „ -	21	1,093	1,321	2,549	3,242	2,751	3,012	3,189	2,983	2,864	2,316
140—150 „ -	—	290	388	815	1,427	1,577	1,907	2,009	2,137	2,487	1,013
150—160 „ -	—	100	77	181	406	551	795	902	1,127	1,184	333
160—170 „ -	—	67	28	54	172	175	251	381	358	429	116
Upwards of 170 lbs.	—	22	11	16	38	63	82	98	185	223	39
Totals at each age	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

Omitting boys, the highest proportion of recruits per 10,000 at any age and weight is 4,042 among those at the age between 19 and 20 years, and at the weight between 120 to 130 lbs.; this proportion being slightly higher than that in the preceding year, 3,975, the limits of age and weight in each year being the same.

United Kingdom.

TABLE XIII.

Chest Measurement of Recruits on Primary Inspection by Army Medical Officers, and on Primary Inspection by Civil Medical Practitioners.	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	Total at each Chest Measurement.
Under 31 inches -	1,193 83	41 —	72 4	38 2	8 —	8 1	3 —	1 —	1 —	— —	1,455
31—32 inches -	151 4	138 1	678 22	402 18	124 1	85 1	71 2	23 2	16 1	5 —	1,835
32—33 " -	50 4	230 3	2,724 193	2,129 146	499 31	283 13	197 13	168 9	116 4	32 2	6,846
33—34 " -	32 2	294 14	5,131 858	5,761 864	1,565 215	830 98	623 67	493 49	488 33	124 5	17,546
34—35 " -	3 3	143 9	2,915 587	5,299 1,550	2,014 503	1,711 344	979 233	697 154	694 152	144 33	18,167
Above 35 inches -	— —	51 —	1,180 179	2,795 717	1,527 401	1,379 272	1,079 218	962 207	1,070 290	282 39	12,648
Totals at each age	1,525	924	14,543	19,811	6,888	5,025	3,485	2,765	2,865	666	58,497

Chest Measurement of Recruits on Primary Inspection by Army Medical Officers, and on Primary Inspection by Civil Medical Practitioners.	Proportions per 10,000 at each Age.										Total proportion per 10,000 at each Chest Measurement.
	Boys under 17 Years.	Between 17 and 18.	Between 18 and 19.	Between 19 and 20.	Between 20 and 21.	Between 21 and 22.	Between 22 and 23.	Between 23 and 24.	Between 24 and 25.	25 Years and upwards.	
Under 31 inches -	8,367	444	52	20	12	18	9	4	3	—	249
31—32 inches -	1,017	1,504	481	258	181	171	209	90	59	75	314
32—33 " -	354	2,522	2,006	1,148	770	589	603	640	419	510	1,170
33—34 " -	223	3,333	4,118	3,344	2,584	1,847	1,980	1,960	1,819	1,937	2,999
34—35 " -	39	1,645	2,408	3,457	3,654	4,089	3,478	3,078	2,953	2,658	3,106
Above 35 inches -	—	552	935	1,773	2,799	3,286	3,721	4,228	4,747	4,820	2,162
Total -	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

Omitting boys, the highest proportions of recruits per 10,000 at the different ages and chest measurements are found to be 4,820 at the age of 25 years and upwards, and above 35 inches chest measurement, and 4,747 at the age of 24 to 25 years, and between 34 and 35 inches chest measurement. In the previous year the highest proportions of recruits were found to be within the same limits of age and chest measurement; this is due, however, to the comparatively small number of men inspected at these ages. Taking the ages at which the greater number of recruits are inspected, the highest proportion of recruits per 1,000 is between 18 and 19 years of age, and 33 and 34 chest measurement.

United Kingdom.

On the Influence of Age on the Mortality of the Troops serving in the United Kingdom.

The rates of mortality at different ages (arranged in quinquennial periods), in the several arms of the service, are shown in the following Table :—

Arms of the Service.	Annual Ratio of Deaths per 1,000 Living at the following Ages:—					
	Under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Household Cavalry - -	—	4·68	2·72	—	—	—
Cavalry - - -	1·70	2·44	4·25	7·55	12·93	32·61
Royal Artillery - -	5·08	6·32	9·33	5·51	11·74	11·25
Royal Engineers - -	12·62	2·44	4·69	8·39	21·02	18·35
Foot Guards - - -	4·17	4·84	5·97	15·62	8·97	15·87
Infantry - - -	2·39	4·57	6·82	15·38	11·84	12·44
Regimental Depôts - -	1·91	6·53	7·54	10·02	29·79	24·93
Garrison, Staff, and Departmental Corps.	—	2·53	6·90	9·08	11·05	64·93
Average of all Troops at Home	2·75	4·65	6·87	9·80	15·27	18·05
Ditto ditto 1873–82	3·28	4·82	6·19	10·15	16·07	23·77
*Civil Male Population England and Wales	6·89	8·67	9·55	10·37	11·96	13·96
*Civil Male Population Healthy Districts -	5·83	7·80	7·93	8·36	8·96	9·86

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* The ratio of mortality of males in the civil population under 20 has been calculated for the ages of 17–20, and that of 40 and upwards for the ages 40–45. The data for England and Wales have been obtained from Dr. Farr's English Life Table, published by authority of the Registrar General in 1864, and for Healthy Districts, from Dr. Farr's Healthy District Life Table, published in the 33rd Annual Report of the Registrar General.

HOME STATIONS.

United Kingdom.

SANITARY CONDITIONS.

Northern District.

Deputy Surgeon General J. O'Nial, C.B., reports that "the general health "of the troops has been fair. The daily sick from all causes amounted to five "per cent., of which general diseases gave three, and venereal diseases two "per cent. The sanitary condition of the various stations has been much "improved, owing mainly to proper effect having been given to the various "recommendations made, and to greater attention having been paid to "sanitary matters by commanding officers and others.

"*Cubic Space.*—In barracks the cubic space has been sufficient, except in a "few instances during the militia trainings.

"*Hospital Accommodation.*—In the recently-constructed hospitals the accom- "modation is good and sufficient, but at the older stations it is bad, notably "so at Bradford, Berwick-upon-Tweed, Chester, and Sunderland. Additional "accommodation is required at Birmingham, Coventry, Chester, Fleetwood, "Salford, Newcastle-on-Tyne, and Preston.

"*Warming.*—The warming of both barracks and hospitals is still unsatisfac- "tory, but the matter has been taken in hand by the Royal Engineer Depart- "ment, and double windows are now being fitted to the north and east sides "of some of the barracks; changes are also being made in the means of "warming.

"*Rations and Cooking.*—The rations were generally good throughout the "year, and the cooking satisfactory."

Deputy Surgeon-General O'Nial mentions a number of improvements which have been carried out and recommended during the year at the various stations in the northern district.

Eastern District.

The Principal Medical Officer, Deputy Surgeon-General T. J. Murphy reports that "there has been no unusual amount of sickness during the year. Enteric "fever caused three admissions, two at Colchester, one being fatal, and one "fatal at Bedford." He points out the prevalence of venereal disease at Colchester, in which an increase of nearly three per cent. of average strength has occurred.

The reports of Medical Officers have generally been favourable as regards *barracks and hospitals*, but at Lincoln and Bury St. Edmunds the men's rooms are reported to be cold and draughty in winter. The hospital at Lincoln has been improved in this respect by double window sashes having been fitted on the eastern side.

At Shoeburyness defective drainage has been reported, and the sewers were said to be imperfectly ventilated; improvement has been effective as to ventilation, but the flatness of the ground renders a perfect system of drainage and the necessary flushing extremely difficult.

At Great Yarmouth both barracks and hospital are old, and the site is one that cannot be made dry. Some of the ground-floor rooms, being damp and cold, have been converted into store rooms.

Rations.—An increase of the meat ration and the supply of a regular evening meal are urged by the Principal Medical Officer, as he considers that growing youths, as nearly all our soldiers at home may now be considered, require more than the present daily ration supplies.

Warming.—It is reported that both at Colchester and Warley much extra fuel is required for efficiently warming the hospitals, and the process of heating by hot-water apparatus is recommended.

United Kingdom.

Sanitary improvements.—There have been but few sanitary improvements effected during the year. At Warley the water supply of the barracks has been rearranged and improved. Improvement has also been made in the outflow of sewage from the barracks.

Western District.

Deputy Surgeon General J. Tulloch, Principal Medical Officer, reports that "the sickness and mortality in 1883 have been moderate, the increase in admissions being due to the greater prevalence of venereal disease.

"The hygienic conditions pertaining to the barracks throughout the district have been on the whole satisfactory. There has been nothing insanitary in their vicinity to which sickness could be attributed. The accommodation has been sufficient, and the means of ventilation, lighting, and warming have been satisfactory.

"*Drainage* is generally in good order and sufficient, but exception must be made at Newport, where, however, a new system is about to be introduced, the latrines, with the exception of those at Worcester, Pendennis Castle, and Newport, are either on Jennings' or Macfarlane's water system, and are, taken altogether, very satisfactory; but the earth closets at the above-mentioned stations do not seem adapted to the moist climate of the West of England.

"The *water supply* has been sufficient generally. A temporary deficiency occurred at Bodmin, owing to defective pipes. The Worcester supply from the River Severn is not considered to be very pure, but no evil has resulted from its use. At South Hook the water became contaminated with sewage; the well was therefore disused, and a new one dug outside the barracks.

"*Hospitals.*—The hospital accommodation in the district generally has been sufficient, but at some stations, when the militia are out for training, or camps of exercise are established in the vicinity, the hospital accommodation is insufficient; this is especially the case at Exeter and Horfield, where barrack rooms have to be temporarily equipped as hospital wards.

"*Station Hospital, Devonport.*—Several desirable alterations have been recommended, and three rooms in the married quarters have been appropriated for the use of sick officers.

"Although several sanitary recommendations have been made during the year, very little appears to have been done. The arrangement of direct communication with sewers by pipes leading from night urinals and sinks at Worcester has been altered. New galvanized iron water pipes have been laid on to Bodmin barracks. The ventilation of the dry room at Cardiff has been improved."

Southern District.

Surgeon General J. Lamprey, Principal Medical Officer, reports that "the health of the troops serving in the district during the year has been satisfactory, and the sanitary condition of the different stations showed no cause of unhealthiness.

"No alteration has been made in the accommodation of barracks and hospitals since last report. The ventilation of buildings has remained the same, with the exception of the meat store at Weymouth and the latrines of the Gosport Forts, which have been improved in this respect. At Dorchester steps have been taken to improve the ventilation of the married quarters in the depôt barracks.

"The means provided for ablution are satisfactory; the cooking arrangements required no alteration, and the dietary, with few exceptions, was satisfactory.

"The drainage has been carefully attended to, and when out of order drains and catch-pits have been promptly repaired. At Southsea, where many of the officers of the garrison live, there is a difficulty in constructing an effective system of drainage owing to the low-lying level of the locality.

United Kingdom.

" Much has recently been done to obviate this insanitary condition of the " place, and a large and costly scheme is under the consideration of the civil " authorities.

" At Gosport, which is similarly circumstanced as regards low level, the " main drain becomes flooded, especially during high spring tides.

" At Dorchester the surface drains have been improved, and catch-pits " better arranged.

" At Christchurch quarters for married soldiers have lately been constructed " on the most improved plan, each family being provided with a sitting and " bed-room, and a scullery.

" At Portland a new canteen was handed over and is found to be in every " way suitable."

Netley.

The Principal Medical Officer, Deputy Surgeon General J. Ekin, M.B., C.B., reports that 2,407 invalids from abroad, including 464 from Egypt, were admitted into the Royal Victoria Hospital during the year; 738 invalids remained in hospital at the close of 1882, making the total treated 3,145; out of these 47 deaths occurred, 1,704 men returned to duty, 1 deserted, 906 were discharged invalided, 8 were transferred to other hospitals, and 479 men were remaining in hospital on 31st December. The highest number in hospital during the year was 927 on the 20th May and the lowest 80 on the 12th October.

The sanitary state of the hospital and the buildings connected therewith has been carefully attended to during the year, and has on the whole been satisfactory.

" *Hospital.*—The sanitary condition has been very good, overcrowding was " avoided by placing some of the convalescents in tents while the pressure " lasted. Ten lavatories in the right wing have been much improved by " covering the floors with asphalte; and this wing has been painted and the " ceilings whitewashed throughout.

" *Heating.*—The heating of the corridors in the medical and surgical " divisions is about to be improved by hot water pipes.

" *Latrines, &c.*—The sanitary state of the latrines, urinals, ablution rooms, " &c. has been carefully attended to.

" *Rations and Kitchens.*—The rations have on the whole been good, the " kitchens in good order and the cooking satisfactory.

" *Water.*—This has been good. Pumps are about to be erected which will " considerably increase the force of water in case of fire. The supply of sea " water for the swimming bath failed for several weeks owing to the boiler " being out of order, but fresh water was substituted. The reservoir was " empty for about a fortnight for repairs but a sufficient supply was obtained " from the wells.

" *Lunatic Hospital.*--The day room has been much enlarged and the in- " firmary transferred to the other side of the building. Two lavatories have " been furnished with asphalte floors. A light verandah in the airing yard " to allow of exercise in wet weather is recommended."

Chatham District.

The Principal Medical Officer, Deputy Surgeon-General W. Manley, V.C., reports that " the health of the troops in the district has been good, and the " proportion of sick to strength less than last year, notwithstanding that there " has been an increase in venereal disease this year.

" The Gravesend Hospital has been reported on unfavourably for several " years, as being unsuitable both in construction and situation, but with the " exception of small sanitary services and rectification of minor defects, nothing " has been done. Plans for the erection of a new hospital are in course of " preparation. A site has already been approved.

United Kingdom.

"The rations and water have been of good quality, but the supply of water " at Chatham Barracks has been described as limited.

"The sanitary condition of the various barracks and quarters is fairly " satisfactory.

"The following are among the sanitary services that have been executed " during the year:—

"*Brompton Barracks.*—Enlarging and improving drain in rear of soldiers' " quarters G. to L. Converting earth closets at Field Works Terrace. Pro- " viding No. 18 rifle sheds with water latrines.

"Thorough sanitary inspections were made of the barracks and hospitals " generally in view of the possible outbreak of cholera, and several minor " defective arrangements in drainage were rectified. The water supply has " been analysed and the sewage tanks twice cleaned.

"*Sheerness.*—Ventilation of officers' mess improved. Latrine erected near " cricket ground in Well Marsh and men's recreation ground. At Barrier " Guard two lock-up cells have been added.

"*Gravesend.—Tilbury Fort.*—Reconstruction of ash-pit, and a new tank " provided to men's ablution room. Also minor sanitary services, such as " cleaning tanks and rectifying small defects, have been carried out in the " sub-district generally."

South-Eastern District.

The Principal Medical Officer, Deputy Surgeon General W. Stewart, reports " that the health of the troops in the district during the year has been good, " the ratio of admissions per 1,000 being less than in the previous year, but " the death rate a fraction higher.

"The general sanitary condition of the barracks and hospitals in the district " appears to have been satisfactory; accommodation and ventilation sufficient, " drainage satisfactory, rations and cooking good, water supply plentiful, and " of good quality, and clothing suitable; but some few exceptions have been " brought to notice by medical officers.

"*Shorncliffe Camp.*—Many of the wooden huts have become dilapidated " through age and stress of weather, but those in occupation have been " repaired, and a number of concrete huts were completed and occupied during " the year.

"At *Hythe* some minor improvements have been effected.

"At *Brighton* attention is called to the old structure of the hospital build- " ing, want of accommodation owing to its confined space, and recommenda- " tion is made that a new one should be erected outside the present boundary " wall.

"At *Dover* a new ventilating shaft to main drain at entrance to Grand Shaft " barracks drain has been provided. Drain at western outworks citadel " thoroughly cleaned and repaired."

Home District.

The Principal Medical Officer, Deputy Surgeon-General Sir James Hanbury, K.C.B., reports " that the sanitary condition of the barracks and hos- " pitals has been on the whole satisfactory. No serious sanitary defects have " existed, and all minor defects have been remedied as soon as discovered.

"The barracks generally have afforded sufficient accommodation. At " Kingston-on-Thames, towards the end of the year, when recruiting was " active, some overcrowding occurred, but it does not appear to have acted " prejudicially to health. Attention has been paid to cleanliness, and lime " washing regularly carried out.

"Ventilation has been carefully attended to. The rations have been of " good quality, and the cooking varied, but at the smaller stations there is a " want of trained cooks.

"The water supply has been good and abundant, clothing has been suitable " and extra blankets were issued during the winter when necessary.

"The family quarters are, on the whole, good, but in some instances over-" crowding occurred, as many as five people sleeping in one small room. This" was remedied."

United Kingdom.

Woolwich District.

Deputy Surgeon-General Sir James Hanbury, K.C.B., reports that "the" general health of the troops has been good. Venereal diseases account for" a large number of admissions especially during the last three quarters of" the year. No case of enteric fever occurred, and no special disease prevailed." There were a few cases of diphtheria, but the disease did not spread" and never assumed an epidemic form. No serious sanitary defects have" been discovered, all minor defects were at once remedied, and all sanitary" recommendations were attended to. The accommodation in barracks has" been sufficient, and ventilation attended to. The rations have been of good" quality, but the bread not so good as that issued to the London district." The water supply has been good and abundant, except for a time at Purfleet," where the supply was cut off at night, but this has been remedied.

"The married quarters are good, but a large number of men reside out of" barracks, as the accommodation is not sufficient for all of them. The men's" lavoratories are placed along the walls, and cause considerable dampness in" the adjacent barrack rooms; this defect has been repeatedly brought to" notice, and is now being remedied by removing the washing benches to the" centre of the apartments.

"Attention has been drawn to the subject of the old system of drainage in" Woolwich Barracks. The cesspits in the officers' backyard, Royal Artillery" Barracks, to which allusion was made in last year's report, have all been filled" up; and as other cesspits have been discovered, they have also been filled" up."

Aldershot Division.

Surgeon-General R. Gilborne, Principal Medical Officer, reports that "in" the early part of the year 18 cases of diphtheria occurred. A special Sanitary" Board was appointed, and all recommendations made by it carefully carried" out. At no time did the disease increase in the barracks or quarters, and" there is but little doubt that it was imported. A few cases of enteric fever" occurred, but considerably less than in the previous year. The principal" sanitary improvements were, special ventilation of all foul drainage of the" permanent barracks, trapping of all sinks and ablution room drain pipes," and proper ventilation of the waterclosets in the officers' quarters in the" cavalry barracks.

"There has been no overcrowding in the barracks or huts. The ablution" accommodation is fair, but it would be a great boon to the soldier if hot" water was laid on during the winter months, especially in the ablution rooms" of the north and south camps.

"The drainage in the vicinity of the barracks and hospitals has been fair;" the attention of the military authorities has been called to any defects which" have been noticed.

"The quality of the water supply of both camps is still under consideration." Some of the wells in the north camp were reported to contain impure water;" they were at once closed.

"Improvements have also been made in the mode of filtering the water" before it is distributed for use; and special interest is taken in procuring and" protecting a good water supply."

United Kingdom.

North British District.

The Principal Medical Officer, Deputy Surgeon-General A. G. Young reports that during the year "good sanitary conditions have been maintained in the " various barracks and hospitals at the stations in the Command, and great " care was taken by Medical Officers to keep their charges in good order.

"There have been improvements made in the drainage systems at Edin- " burgh Castle and Piershill, at the latter station the pavement near the " stables and paved gutters for surface drainage have been repaired; an old " disused well in the hospital enclosure from which a bad odour was emitted " has been closed, and several other improvements are under consideration. " At Glencorse an additional room for the sergeants' mess is in course of con- " struction. At Ayr a new guard room is to be built and the present one " utilized as a prisoners' room, in lieu of the old one which has been condemned. " At Maryhill the insufficient surface drainage has been brought to notice, " and the hospital enclosure is being converted into a garden by prison " labour.

"The cooking is reported to have been satisfactory, the rations good. The " water supply has been good and sufficient, and the sanitary arrangements " generally appear to have been satisfactory."

Channel Islands.

The Senior Medical Officer, Brigade Surgeon W. C. Boyd, reports that " throughout the Channel Islands the health of the troops during the past " year has been good; no special causes of disease are recorded, and the " usual points in connexion with the health of the troops appear to have " been duly attended to.

"The sanitary condition of barracks and hospitals in Jersey has been " reported as satisfactory, but the Medical Officer in charge, Guernsey, " reports unfavourably on the latrines in the Lower Lines Barracks, Fort " George, and also on the hospital ablution rooms. The latrines at Fort " Hommette are also noted as objectionable, and the water supply for flushing " deficient.

"Several sanitary improvements were made during the year in both " barracks and hospitals, and others were recommended to be carried out " during the succeeding year."

Belfast District.

The Principal Medical Officer, Deputy Surgeon General W. A. Thompson, M.B., reports that "the general health of the troops throughout the district " has been good, and no special causes of disease have been brought to " notice.

"The Medical Officer in charge, Station Hospital, Belfast, points out the " inefficient condition of the waterclosets, but it is understood that estimates " have been framed for new ones; a properly isolated ward for infectious cases " is also needed; the hospital is not quite large enough for the requirements " of the troops, and occasionally it has been necessary to occupy a barrack " room; these defects will be brought forward in due course.

"At *Dundalk*, certain wells in barracks were condemned, the water, on " analysis, being found unwholesome. An Abyssinian tube well has been " sunk, which gives an ample supply of water of good quality.

"At *Enniskillen*, it is reported that overcrowding has existed in most " barrack rooms throughout the year; this has been represented on more than " one occasion, but it was not considered advisable to reduce the force. " The general sanitary condition of barracks, hospitals, and their surround- " ings has been satisfactory.

"Numerous improvements have been carried out during the year."

Dublin District.

The Principal Medical Officer, Brigade Surgeon S. B. Roe, M.B., reports as follows:—

"At *Athlone* an outbreak of enteric fever was attributed to the use of " water from a previously disused well. The observations of the Principal " Medical Officer in Ireland, when inspecting the station, confirmed the " report of the officer in medical charge.

"At *Castlebar*, a similar outbreak was reported to have been caused by " sewage matter percolating into a well; the well was closed and the disease " ceased to spread.

"It is difficult to ascertain the exact cause of the sporadic enteric cases " which have occurred in the *Dublin* Barracks; in all probability the disease " was contracted out of barracks. A careful inspection was made in each " case but no cause could be detected.

"The outbreak of scarlet fever which occurred at *Portobello* during the " end of this year, was undoubtedly introduced from without.

"At the Royal Barracks, *Dublin*, dry areas have been constructed around " a number of the quarters with satisfactory results, and ventilation has " been improved. Disused drains have been searched for and obliterated.

"At *Galway*, the outside of the new barrack buildings has been painted.

"It is reported by the Medical Officer at *Birr*, where there have been some " complaints regarding the water, that a new filter tank is now completed, " and there is an abundant water supply; a sample of the water will be " submitted for analysis."

Cork District.

Deputy Surgeon General O. Barnett, C.I.E., reports that "the general " health of the troops during the year has been most satisfactory, and there " has been almost a total absence of epidemic disease; all sanitary precautions " have been strictly carried out, and recommendations for improvements have " generally, as far as practicable, received attention.

"The only diseases which were attributable to any local cause were nine " cases of enteric fever at Kinsale, which were traced to the use of water in " one of the wells in the barrack enclosure, which was found on examination " to be unfit for use; and a slight outbreak of diphtheria at Limerick, where a " latrine was found to be in a filthy state, in the vicinity of the quarters.

"*Latrines.*—In most of the stations the dry earth system of conservancy " is carried out, and where means exist for drying the earth it is satisfactory, " but the system requires constant supervision to be effectual. In a few " stations there are water latrines which are regularly flushed. Ablution, " bath rooms, and washhouses are provided at almost all the stations, some " are very good, in others there is room for improvement.

"*Drainage.*—Is generally reported as satisfactory; but the immediate " neighbourhood of many of the barracks, owing to proximity to the towns, " cannot be said to be in a sanitary condition."

In noticing the different stations in the district the Principal Medical Officer points out that at some of them "the accommodation for married " families is not sufficient, particularly at Cork and Ballincollig, while in " Buttevant and Kilkenny there is no special accommodation provided. The " hospital accommodation was sufficient to meet requirements throughout " the district and there was no overcrowding.

"The water supply is reported to have been generally good and sufficient. " At Kinsale there has been difficulty in providing good drinking water, as " that from wells in the barrack enclosure was found unfit for use.

"The rations and cooking are both reported to have been satisfactory.

"The following are among the chief improvements that have been effected " during the year:—

"*Fermoy.*—Water supply is being carried out under the control of the " Town Commissioners.

United Kingdom.

" *Limerick.*—Completion of new building containing recreation, library, and " infant school in new barracks. Improvements to drainage.

" *Queenstown.*—Flaveles' patent range erected in hospital kitchen. At Forts " Camden and Carlisle, and at Haulbowline, improvements in latrine " arrangements.

" *Castle Island.*—Drainage rendered more effective. A room appropriated " as bath room."

Curragh District.

Brigade-Surgeon W. H. Muschamp, Principal Medical Officer, reports that " the sanitary condition has been generally satisfactory, and that the diseases " which occurred were not traceable to sanitary defects. Defects in the working of the sewage farm to the south of the camp were noticed in the report " from the medical officer in charge right wing. It is understood that the " matter is under consideration. The water supply of the camp is good and " abundant; it is pumped up from a well to the north of the camp and " stored in iron reservoirs at the highest part of the camp.

"The huts are reported to be in good order, but many of them are old; " some are being replaced by concrete buildings. As might be expected in " an elevated and exposed situation, there is difficulty in warming and preserving an even temperature in the old wooden huts.

"The accommodation at the 2nd station hospital has been improved by the " erection of three large brick wards, each having a superficial area of 2,208 " square feet, and a cubic capacity of 30,912 cubic feet. They are constructed " to contain 24 patients each. Ventilation is very good."

III.—ON THE HEALTH OF THE TROOPS SERVING IN THE MEDITERRANEAN.

Sickness and Mortality.

I.—GIBRALTAR.

Gibraltar.

The average strength of the warrant officers, non-commissioned officers, and men serving in the garrison of Gibraltar in the year 1883 was 4,737. The force consisted of Royal Artillery, Royal Engineers, 1st Battalion East Surrey Regiment up to 21st May, when it left for England on being relieved by the 1st Battalion Berkshire Regiment from Egypt, the 1st Battalion North Lancashire Regiment, the 2nd Battalion Essex Regiment, the 2nd Battalion Durham Light Infantry, detachments of Departments and Garrison Staff. The 32nd Company Royal Engineers left for St. Helena on 21st May, the 30th Company for Bermuda on the 8th October, and the 9th Company arrived from England on the 6th December.

The total number of admissions into hospital was 4,240; the deaths (including those of two invalids who died after arrival at home) were 27, and the average number constantly sick was 292·23. The annual rates per 1,000 derived from the foregoing are therefore—admissions 895·1, deaths 5·70, and constantly sick 61·69. Compared with the results for the previous year there is an increase of 78·5 in the admission rate, and one of 11·34 per 1,000 in the rate of constantly sick; in the death rate, however, a decrease of 4·61 per 1,000 is noticed; and in comparison with the average rates for the previous 10 years the increase in those of admission and constantly sick is still more marked, being 188·4 and 20·67 per 1,000 respectively, but that of mortality still shows a decrease, 1·33 per 1,000. The average sick time to each soldier was 22·52 days, and the average duration of each case of sickness 25·16 days, being greater than the corresponding periods in the preceding year by 4·14 days and 2·65 days respectively. The more important of the health statistics of the troops which served in the garrison during the year will be found in Abstract XLII.

Surgeon-Major T. S. Cogan, in charge Station Hospital, reports that the health of the corps in garrison during the year was generally good, except in the 1st Battalion East Surrey Regiment and 1st North Lancashire Regiment, both composed of very young soldiers, and also in the 1st Battalion Berkshire Regiment lately arrived from Egypt. Simple continued fevers and venereal diseases were the principal causes of admission. The 1st Battalion Berkshire Regiment had the highest admission rate, 1042·6 per 1,000, and the Royal Artillery the lowest, 690·5 per 1,000; the 2nd Battalion Essex Regiment had the highest rate of mortality, 11·52 per 1,000. The highest constantly sick rate is found in the 1st Battalion North Lancashire Regiment.

The admissions, deaths, invaliding, &c. in the various classes and orders of diseases will be found in Abstract No. II.

GENERAL DISEASES.—The number of admissions for diseases of the *febrile group* was 827 and of deaths 10, being in the annual ratios of 174·6 and 2·11 per 1,000, which show a decrease on the corresponding rates for the previous year of 27·2 and 2·93 per 1,000 respectively. Eruptive fevers gave 4 admissions, three being for small-pox and one for measles, none of the cases were fatal. Small-pox was very prevalent in Gibraltar during the year. The annual report on the public health of Gibraltar by the health officer, Surgeon Major F. T. Staples, contains a carefully drawn up account of the epidemic. It commenced in December 1882, continued throughout the year under report, and up to February of 1884, when it appears to have ceased. The total number of cases during the year was 163, and of deaths 24.

Gibraltar.

Among continued fevers are observed 12 admissions and 5 deaths for enteric fever, which compare very favourably with the numbers in the previous year; and Surgeon Major Cogan calls attention to the probable connexion of deficient rainfall with increased production of enteric fever, "contrasting the " years 1882 and 1883, we have a rainfall of only 15 inches in the former, " when the admissions for enteric fever were 40 and deaths 18, while in the " latter year, when the rainfall was 30 inches, there were only 12 admissions " and 5 deaths. Other continued fevers numbered 800 admissions and 4 " deaths, the rate of prevalence being somewhat less, but that of mortality " about the same as in the preceding year."

Paroxysmal fevers were represented by 5 cases of ague, and the remaining diseases of the febrile group by six cases of erysipelas, of which one was fatal.

In the *constitutional group* of diseases were 1,065 admissions and 4 deaths, being in the annual ratios of 224·8 and ·85 per 1,000 respectively, in comparison with the previous year an increase occurred in the admission rate of 87·2, and in the death rate a decrease of ·68 per 1,000; 185 admissions, or 39·1 per 1,000, are returned for the various forms of rheumatism, being an increase of 5·1 per 1,000. Only 13 cases were of the acute form, and there were no deaths nor, it is stated, any cardiac sequelæ. The remainder, of the muscular and chronic varieties, though numerous, call for no special remark.

The rate of admission for primary syphilis was 164·0, and that for secondary syphilis 18·6 per 1,000, the increase on the corresponding rates in the preceding year being 79·1 and 5·7 per 1,000 respectively.

The number of admissions for tubercular diseases was 11 and of deaths 4, including those of two invalids after leaving the command; the admission rate, 2·3 per 1,000, is less than half that of the preceding year.

LOCAL DISEASES.—The admission rate for diseases of the nervous system, 5·1 per 1,000, is about the average. Out of 24 cases 9 were due to mental disease and 6 to epilepsy. There was a decrease in the prevalence of ophthalmic affections, but a slight increase in that of aural diseases as compared with the previous year. Diseases of the circulatory system were slightly on the increase, and palpitation was the chief cause of admission; there were, however, three deaths, one from pericarditis and two from aneurism.

The admission rate for respiratory affections, 27·9 per 1,000, shows a decrease of 1·3, and is considerably below that of the average of the preceding four years. Bronchitis caused 60 admissions, pleurisy 1, and pneumonia 13, one case being fatal. The rate of prevalence of diseases of the digestive system, 94·0 per 1,000, is less by 13·5 than in the previous year, but is still somewhat above the average, the admissions numbered 445, tonsillitis, diarrhœa, and dyspepsia being the chief causes; hepatic affections were prevalent, and 20 cases of jaundice alone are returned; 4 deaths occurred, 2 from hepatic abscess, 1 from hepatitis, and 1 from peritonitis. The rate of admission for urinary diseases shows an increase chiefly due to the prevalence of gonorrhœa, though other affections of this order have also been more frequent.

The admission rate for *debility*, 11·2 per 1,000, is more than twice as great as in the previous year, but is about the average. The cases were chiefly due to fever and protracted convalescence therefrom. Twenty-seven admissions for *poisons* are returned, 22 being on account of alcohol and 4 of delirium tremens; there was also one case of lead poisoning.

General Injuries.—Three deaths are recorded, one caused by multiple injury, a man accidentally fell over a precipice the height of nearly a hundred feet; the second death was due to drowning, a man fell into a well on a very dark night; and the third resulted from asphyxia from plugging of the air passages by vomited matters while in a state of intoxication.

Local Injuries caused 387 admissions and 2 deaths. The causes of admission were varied, being principally wounds, contusions, and fractures; 2 cases of gunshot wound are recorded, one case, invalided from this command, was loss of thumb by gunshot, *self-inflicted*, at Malta. A man attempted *suicide* by cutting his throat while in a state of delirium from fever. A death is returned from contusion with rupture of viscera, the man jumping a wall fell on his abdomen and died in a few hours; it was found, on post-mortem examination, that he had ruptured his stomach. The second death, by fracture of the fourth cervical vertebra with injury to the spinal cord, resulted from a man plunging head foremost into the sea and striking his head against a rock.

Surgical operations.—One case of amputation of toe for contraction and deformity, three operations for hydrocele, and one for fistula in ano, were all successful. Paracentesis abdominis was performed thrice, with temporary alleviation; the case ultimately proved fatal.

Invaliding.—The number of men invalided home was 111, and of men finally discharged 38, being in the annual ratios of 23·43 and 8·02 per 1,000 respectively, the former being greater than the corresponding rate for the previous year by 8·73, but less than the average rate for 10 years by 5·13 per 1,000, and the latter being less than the similar rate in 1882 by 1·63, and than the decennial average by 6·37 per 1,000. Of the men invalided home 7 were in their first year of service, 61 under 5 years, 16 under 10 years, and the remainder above that period. The principal causes of invaliding were rheumatism 25 cases, debility 12, febrile affections 12, and mental affections 5 cases; and of final discharge, diseases of the circulatory system, of the eye, of the organs of locomotion, and tubercular affections.

Officers.—The average strength was 147, the attacks of illness numbered 88; one death occurred, and 8 officers were invalided; the annual ratios were therefore 598·6, 6·80, and 54·42 per 1,000 respectively. As compared with the previous year there was a slight decrease in the rate of prevalence of sickness, a more considerable one in the rate of mortality, but a slight increase in that of invaliding. Febrile affections and rheumatism were the principal causes of illness; the death was due to fatty degeneration of the heart; and the invaliding resulted chiefly from fevers.

Women.—In an average strength of 299 there were 110 cases of sickness and 3 deaths. The rates of prevalence of illness and mortality, 367·8 and 10·03 per 1,000 respectively, compared very favourably with the corresponding rates for the previous year, the decrease amounting to 105·7 per 1,000 in the rate of prevalence and to 4·10 in that of mortality. The greater number of the attacks were caused by febrile diseases, among which was one case of small-pox. The deaths were due to puerperal mania, childbirth and debility, one case of each.

Children.—The average strength is returned as 561, the attacks of illness 187, and deaths 16; the rate of prevalence of sickness being 333·3 per 1,000, and that of mortality 28·52, both of which show a very considerable decrease on the similar rates in the preceding year; the almost complete absence of measles, which was epidemic in 1882, accounts in great measure for the diminution of sickness. Febrile affections caused a large number of attacks, among which were 2 cases of small-pox and 2 of scarlatina; bronchial affections, diarrhœa, and other digestive disorders, were the chief causes of the remaining attacks of illness. The deaths were due to diarrhœa in 3 cases, to anæmia, bronchitis, dysentery, and debility in 2 cases each, and to meningitis, hydrocephalus, pneumonia, tonsillitis, and jaundice in one case respectively.

Sanitary Conditions.—The Principal Medical Officer, Surgeon-General A. Smith, M.D., C.B., reports that " during the year 1883 the existence of any " special cause of disease was not brought to notice.

" The following is a concise statement of the leading sanitary improvements " effected in the course of the year.

" 1. *North Front.*—The provision of two iron tanks, each of 6,000 gallons " capacity, for the storage of rain water collected from the roofs of the huts.

" 2. *Grand Casemates.*—Officers' quarters in basement refloored, and ventilation under the boarding provided; fireplaces supplied to five barrack rooms.

" 3. *Moorish Castle.*—Fireplaces provided in all barrack rooms.

" 4. *Town Range.*—Remainder of basement rooms boarded and provided " with fireplaces.

" 5. *South Barracks.*—One basement barrack room boarded, and open air fireplaces, with excellent grates, provided to six other barrack rooms; drainage " of yard of married quarters greatly improved.

Gibraltar.

" 6. *North Jumper's Bastion.*—A new guard room provided and the old " building converted into a recreation room.

" 7. *Windmill Hill.*—New cooking stove furnished at Fuze House Barracks.

" 8. *Europa.*—Four well-ventilated bomb-proof barrack rooms provided in " the new defensible barracks.

" 9. *Station Hospital.*—Large ablution room reconstructed. Increase of " accommodation to the extent of 46 beds provided by various re-appropria- " tions, and six gas stoves supplied in different parts of the corridors.

" 10. *General.*—Filters on an improved principle, and found to be highly " efficient, issued to barracks and hospital.

" The drainage and general sanitary condition of the barracks and hospital " and their vicinity have been, on the whole, satisfactory, and no alterations " have been effected during the year as regards drainage.

" A gymnasium exists, and the effect of the training on the health of the " troops has been highly satisfactory."

II.—MALTA.

Malta.

The average annual strength of warrant officers, non-commissioned officers, and men serving in the garrison during the year was (with the exception of the Royal Malta Fencible Artillery) 4,611. The force was composed as follows:—Head-quarters and 8 batteries Royal Artillery, 2nd Battalion Royal Sussex Regiment, 2nd Battalion Royal Munster Fusiliers, detachments Royal Engineers, and detachments of Departmental Corps and Garrison Staff. The above were present throughout the year, and in addition a half Battalion of the Royal Scots was in garrison from 1st January to 24th February; the 2nd Battalion Royal Irish Regiment from 9th February to 17th May; the 1st Battalion South Staffordshire Regiment from 22nd March to 31st December; the 1st Battalion Shropshire Light Infantry from 23rd February to 31st December, and the 2nd Battalion Durham Light Infantry from the 1st January to the 24th February.

The total number of admissions into hospital was 3,526, and of deaths 40, including that of an invalid after arrival at home. The average number constantly sick was 246·60. The ratios per 1,000 of strength resulting from these figures are, for admissions 764·7, deaths 8·68, and constantly sick 53·48. Compared with the corresponding rates for the previous year a decrease is observed in that of admission of 39·6 per 1,000, and in that of mortality one of ·20 per 1,000, but an increase of 1·13 is noticed in the rate of constantly sick. In comparison with the average of similar rates for the preceding 10 years, the admission and death rates are less by 99·9 and ·98 per 1,000 respectively, but the rate of constantly sick is increased by 6·92 per 1,000.

The average sick time to each soldier was 19·52 days, and the average duration of each case of sickness 25·53 days, both being longer than the corresponding periods in the previous year, the former by ·41 and the latter by 1·77 days.

The more important of the health statistics of the different regiments and corps which served in Malta during the year are shown in Abstract XLII.

The 2nd Battalion Royal Munster Fusiliers gave the highest admission rate, 991·8 per 1,000, and the 1st Battalion South Staffordshire Regiment the next, 896·7 per 1,000. The Principal Medical Officer, Surgeon General W. Sinclair, remarks that " the first-named corps had such a high per-centage of sick in " the months of August and September, when quartered at Lower St. Elmo " Barracks, due to fevers, that I recommended them to be moved to Pembroke Camp, when they soon recovered their health. The latter corps " returned from Egypt, where it had gone through the late campaign, and " no doubt the men were debilitated by exposure and hard work. A great "many of the admissions for dysentery occurred among the men of this corps "and were mostly of a severe type." The corps which shows the highest death rate is the Royal Artillery, 15·06 per 1,000, the high rate being due to three deaths by violence out of hospital. Invaliding was highest in the 1st Battalion Royal Scots, due to several men being left behind on departure of the regiment as unfit to proceed. The 2nd Battalion Royal Munster Fusiliers had the highest rate of constantly sick. The admissions, deaths, and invaliding, &c. under each class and order of disease are shown in Abstract No. III. *Malta.*

GENERAL DISEASES.—*Febrile group.*—Under this head are shown 597 admissions and 19 deaths, the number constantly sick being 54·04, the ratios per 1,000 are therefore 129·5, 4·12, and 11·72 per 1,000 respectively. In comparison with similar rates in the preceding year there is a decrease in the rate of prevalence of fevers amounting to 7·5 per 1,000, but the death rate and constantly sick rates are increased by 1·09 and 2·32 per 1,000 respectively. The admission rate is also below, while the death and constantly sick rates are slightly above the average. Eruptive fevers are represented by a single case of small-pox, which was slight, and occurred in a married soldier living in the Camerata, but no further outbreak took place among the men.

Continued fevers caused 564 admissions and 17 deaths, equal to annual rates per 1,000 of 122·3 and 3·69 respectively, the former being less than that in 1882 by 6·3, and the latter fractionally greater.

Enteric fever caused 120 admissions and 17 deaths (equal to 42·5 per cent. of the total deaths from all causes), and simple continued fever and febricula caused 260 and 184 admissions respectively. As compared with the preceding year a considerable increase has occurred in the number of admissions for enteric fever, the rate of prevalence, 26·0 per 1,000, being greater by 9·1, and that of mortality, 3·69, by ·88 per 1,000; the per-centage of deaths to attacks, however, was 14·17, which shows a decrease of 2·50 per cent.

The return from the Station Hospital, Valletta, shows 51 admissions and 9 deaths from enteric fever, that from Cottonera 64 admissions and 5 deaths, and that from Forrest 5 admissions and 1 death; 2 deaths are also returned from the Sanitarium Civita Vecchia.

The Medical Officer in charge, Valletta, remarks that "during September "21 cases were admitted, nearly all from Upper St. Elmo Barracks, where it "was discovered that two pipes were broken so that there was a direct opening from the sink of the women's wash-house to the pipe carrying the rain "water to the tank used for drinking; the pipes were mended and the disease "ceased almost at once."

The Medical Officer in charge at Cottonera, states it is not easy to account for the yearly increase of the disease in that district, as the sanitary condition of the barracks and quarters is reported to be satisfactory, but he is of opinion that it is attributable to impure water supply. With regard to the cases which occurred at Pembroke Camp, the Medical Officer in charge at Forrest Station Hospital believes that they were contracted in the low parts and back slums of Malta and not in the camp. Of the milder forms of continued fever the greater part occurred in the Valletta district, they were all mild in character and apparently due to irregularity or exposure.

Paroxysmal fevers caused 18 admissions, of which 7 were for remittent fever, and the remainder for ague; there was no death. The rate of prevalence is fractionally lower than in the preceding year. It is remarked that most of the men admitted had previously served in Egypt.

Three cases of choleraic diarrhœa are returned, all of them occurred in married men living in the Camerata, they all recovered, but are reported to have been of a dangerous type. Other diseases of this group caused 11 admissions and 2 deaths, of which one was due to erysipelas and the other to pyæmia; 2 slight cases of diphtheria occurred at Forrest, where the disease was prevalent among children,

Constitutional group.—487 admissions and 4 deaths occurred, being in the respective rates of 105·6 and ·87 per 1,000. Compared with the corresponding rates in the previous year, there is an increase of admission rate (chiefly due

Malta.

to the prevalence of syphilis) of 20·1 per 1,000. The death rate, ·87 per 1,000 shows a fractional decrease.

The number of admissions for rheumatism was 122, the rate of admission per 1,000 being 26·5, fractionally less than in 1882. Primary syphilis, however, caused 287 admissions, or a rate of prevalence equal to 62·2 per 1,000, which is higher than that of the previous year by 26·9, and is more than double that of the average of the four preceding years. Secondary syphilis, on the other hand, shows a slight decrease of admission rate. One death is returned. It is stated that the increase in prevalence of the primary form of the disease began in May on the arrival of the troops from Egypt, and continued during the whole of the summer months up to October, when it slackened; it is attributed by some to clandestine and unlicensed prostitution and by others to want of proper care and supervision on the part of the authorities.

Tubercular diseases caused 27 admissions and 3 deaths, 2 being from phthisis pulmonalis, of which one occurred in an invalid after having left the island, the third death was due to acute miliary tuberculosis. These affections were less numerous than in 1882. Of the remaining admissions in this group 1 was for scurvy and 10 for anæmia.

LOCAL DISEASES.—Diseases of the nervous system caused 61 admissions and 2 deaths, the rate of admission, 13·2 per 1,000, showing an increase of 3·0 on that of the preceding year, and that of death a decrease of ·22 per 1,000. Among the admissions were 7 cases of sunstroke, 7 of epilepsy, and 11 of mental affections. The deaths were due to meningitis in one case, and to sunstroke in the other, the man had been sleeping in the sun after playing cricket all day.

Diseases of the circulatory system were at the rate of 23·6 per 1,000, which is greater than that of the preceding year by 14·7, and more than double the average rate. The Principal Medical Officer remarks that this increase is due to numerous cases of palpitation (66 out of a total of 109) caused by the effects of vice and intemperance in young soldiers, debilitated by climate, and also by the use of strong tobacco. Valve disease of the heart caused 30 admissions, of which one case proved fatal. The rate of prevalence of respiratory affections, 32·5 per 1,000, is slightly lower than in 1882, and there were 3 deaths, 2 from bronchitis and 1 from pleurisy, a sequel to enteric fever. Pneumonia caused 16 admissions and pleurisy 10.

The admission and death rates for diseases of the digestive system are identical with those of the preceding year, 113·7 and ·87 per 1,000 respectively, the former being below and the latter fractionally above the average. The prevailing diseases were tonsillitis, dyspepsia, dysentery, diarrhœa, and jaundice. The deaths, 4 in number, were due to dysentery, in one case, of unusual severity, two cases of abscess of the liver, and one of peritonitis, in the latter an intussusception of the intestine was discovered at post-mortem examination. The admissions for tonsillitis are said to have occurred mostly during the winter months, and the cases were chiefly of a severe nature with a considerable amount of constitutional disturbance, and to have been due to the sudden changes of temperature between day and night. Many of the cases of dysentery were admitted from corps which had previously served in Egypt, and where they had been under treatment for the same disease.

Among diseases of the urinary system it is noticed that a decrease of 26·8 per 1,000 has occurred in gonorrhœa, but the remaining affections are about the same. There is an increase in diseases of the generative system and cellular tissues, but a decrease in those of the organs of locomotion and cutaneous system. A case of hypertrophy of the male mammilla is returned.

Debility shows an admission rate of 17·3 per 1,000, which, though an increase on the previous year, is below the average. Most of the cases were the result of fevers and climate, and, with the exception of eight invalided, soon recovered after a short stay at Civita Vecchia.

Under the head of *poisons* 32 admissions are recorded, of which alcohol caused 26 and delirium tremens 4; the remaining two cases were admitted for oxalic acid poisoning, one of which was slight and apparently accidental, but the other (a private, 2nd Battalion Royal Sussex Regiment,) was an attempt at *suicide*. He, however, recovered after 21 days' treatment. *Malta.*

The Principal Medical Officer reports that:—

During the month of August, when cholera was raging in Egypt, 28 of the men of the 2nd Battation Royal Sussex Regiment, quartered at the Floriana Barracks, were brought to hospital, having been attacked with vomiting, &c. They all appeared to be suffering from poisoning of an irritant character, and, on a number of them being questioned, they appear to have purchased milk from a hawker in barracks, which in the opinion of the officiating Principal Medical Officer, Brigade Surgeon W. Sly, "was of a poisonous character by reason of "the goats who supplied the milk having eaten some unwholesome herbage." No bad results attended the cases, though some of the more serious were admitted to hospital.

General Injuries.—Five admissions are shown. Three of the cases were multiple injury; one man was run over by a cart and sustained dislocation of the shoulder, with fracture of the spine of the left scapula, the right shoulder being much contused. Another man, whilst trying to save himself when falling from a ship in the harbour, received injuries of the left hip and leg, the lower part of his spine being also much injured. The third case was one of a man who received serious injuries by being kicked by some drunken men. The other two admissions were due to asphyxia by drowning; both men belonged to the South Staffordshire Regiment; they were upset from a boat in the Grand Harbour, and were submerged for some time, but recovered under treatment.

One death from drowning, however, occurred in the Grand Harbour; an artilleryman who had been missing for some days was found drowned.

Local Injuries caused 435 admissions and 6 deaths. The admission rate, 94·4 per 1,000, is lower by 26·2 than that of the previous year, and also considerably below the average.

The principal causes of admission were contusions, fractures, and wounds, mostly trivial. Of the six fatal cases, fracture of the skull was the cause of death in two instances; one, a man of the Royal Munster Fusiliers was found dead on the top of the Lower St. Elmo Barracks, the other, an artilleryman, fell from the top of St. James' Cavalier. It is supposed that the latter had been sleeping on the roof of his barrack room and rolled over. Three deaths were caused by wounds, one case was *homicidal*. A corporal, Royal Artillery, was stabbed in the groin with a sword bayonet by a gunner; the external iliac artery was nearly severed, and death ensued in a few minutes. Two cases were *suicidal*. A man of the Shropshire Light Infantry, and a man of the South Staffordshire Regiment, both committed suicide by cutting their throats while in a state of temporary insanity. The remaining fatal case was due to an accident at football; a delicate young soldier ruptured the tendon of the transversalis muscle, peritonitis followed, and death ensued.

Surgical Operations.—Some minor surgical operations were performed with good results, among which were two for removal of phalanges of crushed fingers, one for removal of a buck shot embedded in the knee joint, one for fistula in ano, and one for empyema.

Invaliding.—98 men were invalided home during the year, and 34 were finally discharged, being in annual rates of 21·25 and 7·37 per 1,000 respectively, the former being less than that in the preceding year by 15·12, and than that of the average of 10 years by 9·20 per 1,000, and the latter less than in 1882 by 12·76, and than the decennial average by 9·51 per 1,000. The principal diseases for which invalids were sent home were tubercular diseases 16 cases, diseases of the nervous system 18, of which number 13 were mental affections, diseases of the circulatory system 23, including 18 of valve disease of heart, and 5 of palpitation, rheumatism 7, digestive affections 6, and general debility 8. Of the men invalided, 56 were under 24 years of age, and 59 under 5 years' service. The principal causes of final discharge were tubercular diseases, diseases of the nervous, circulatory, and digestive systems, ophthalmic affections and injuries.

Officers.—The average annual strength of officers was 137. There were 67 cases of illness and 1 death, and 12 officers were invalided home. The rate of attacks of illness per 1,000 of strength was 489·0, which is lower than in the

Malta.

preceding year by 247·2. The death rate was 7·29 and the invaliding rate was 87·59 per 1,000. The principal diseases were fevers, diseases of the respiratory and digestive systems, and local injuries; and there were two cases of measles. The death was caused by phthisis pulmonalis. The diseases which necessitated invaliding were fevers, phthisis pulmonalis, melancholia, pleurisy, diarrhœa, hepatitis, debility, concussion of the brain, and dislocation.

Women.—In an average annual strength of 252 there were 251 cases of illness and 3 deaths, being in the annual ratios of 996·0 and 11·90 per 1,000, being higher than the corresponding ratios of the preceding year by 262·7 and 8·20 respectively. The prevailing diseases were fevers, rheumatism, phthisis pulmonalis, and diseases of the respiratory and digestive systems. One case of small-pox of a mild type occurred in a woman of the Royal Artillery living in the Camerata. The deaths were due to phthisis pulmonalis, enteritis, and puerperal mania, one case respectively.

Children.—The average annual strength being 417, the cases of sickness 371 and the deaths 44, the rate of prevalence of illness was 889·7, and of death 105·51 per 1,000. These rates are considerably higher than in the previous year, that of prevalence by 379·1 per 1,000 and that of mortality being nearly treble. A few cases of measles occurred, and 5 of diphtheria, the prevailing diseases were fevers, bronchial affections, teething, diarrhœa, debility, &c. The principal causes of death were fevers 4, diphtheria 2, convulsions 4, respiratory affections 7, and digestive disorders 17; 2 deaths from fracture are returned, in one case a child became entangled in the cog-wheels of a windmill, fracturing both legs, one leg was amputated, but the child died after eight days; in the other case a child fell out of a window and fractured its skull.

Sanitary Conditions.—The Principal Medical Officer reports that the general health of the troops was good, and that compared with the preceding year there was a decrease in the amount of sickness, mortality, and invaliding; also that the sanitary condition of the various barracks and hospitals was, as a rule, well attended to.

With regard to the water supply, the Principal Medical Officer states that nearly all the barracks and hospitals are supplied with spring water obtained from the aqueduct, except those at Pembroke Camp and Forrest Station Hospital, which have to rely on the amount of rainfall. In the dry season, about June and July, the water in these places falls short, and it is necessary to bring water in carts at a great cost. The tanks which supply Civita Vecchia also often run dry about the same time. Improvement in this direction is required, and, with regard to Civita Vecchia, measures are being taken to enlarge the tank.

In most of the barracks the accommodation is said to have been ample, but at Marsamuscetto the rooms appear overcrowded, the superficial area being too small. At the Cottonera and Forrest Hospitals detached wards are needed for the treatment of infectious diseases. In June a block was opened at Pembroke Camp for treating cases of venereal disease. As the main drains in the vicinity of the Valletta Hospital were about to be opened, the more serious of the remainder of the cases in this hospital were transferred either to Civita Vecchia Sanitarium or Forrest Hospital. The rations have been generally satisfactory and the cooking good; one or two of the cook-houses, however, need slight improvements. The latrines and urinals are mostly of the Jennings' pattern, and are kept in a good sanitary condition. It is pointed out that one or two are badly constructed, or objectionably situated.

The drainage of the Marsamuscetto Barracks has undergone repair, and earthenware pipes have been laid down instead of the porous stone. The drainage of the town of Valletta will soon be completed, the work was stopped during the cholera epidemic in Egypt, but since then extra hands have been taken on and progress is being made.

On account of offensive odours from the open sewers in the vicinity of the garrison cells at St. Francis's Barracks it was necessary to remove the prisoners to Cottonera until these sewers were closed.

The Principal Medical Officer points out that in several of the barracks ventilation is defective, and that the lower rooms at Vittoriosa Barracks are almost unfit for occupation, being closely surrounded by houses, badly lighted and partly underground. In the Verdala Barracks there is not sufficient ventilation, the air being excluded from the barracks by walls and high ground.

Fevers prevailed in the military prison, Corrodino, in the beginning of the summer, the cause was traced to the defective condition of a discharge pipe, and to old disused drains under the floors of the quarters of medical officer and governor; these defects were quickly remedied, and there is reason to expect that the quarters will now be healthy.

Among the principal sanitary services which have been completed, or will shortly be carried out, are the following:—

Improvements in lighting, ventilation, and warming at Floriana, Upper St. Elmo, and St. James' Cavalier Barracks, and the provision of a fireplace to No. 12 Ward, Sanitarium, Civita Vecchia.

Provision of a new bathing place for men who are unable to swim at Lower St. Elmo. Drainage improvements at Floriana Barracks, officers' quarters, staff sergeants' quarters, and cook-house, and at St. Francis Barracks. Increased water supply to married quarters at Floriana Barracks, officers' quarters, Upper St. Elmo and Sanitarium, Civita Vecchia. At the Valletta Station Hospital provision of quarters for the orderly medical officer.

ROYAL MALTA FENCIBLE ARTILLERY.

The average annual strength of this corps was 344 non-commissioned officers and men; among these were 234 admissions into hospital and three deaths; the number constantly sick being 8·86; the ratios per 1,000 of strength are therefore 680·2, 8·72, and 25·76 respectively. Comparing these with the corresponding rates for the previous year an increase has occurred of 74·5 in that of admission and one of 2·95 in that of constantly sick; the rate of mortality, however, is reduced by 3·90 per 1,000. In comparison with the similar average rates for the preceding 10 years an increase of 7·7 and 2·08 per 1,000 is observed in the admission and death rates respectively, the rate of constantly sick being fractionally decreased. The average sick time to each soldier was 9·40 days, and the average duration of each case of sickness 13·82 days, the former showing an increase of 1·08 and the latter one of ·8 days on the similar records for the foregoing year.

The admissions and deaths in the different classes and orders of diseases are found in Abstract IIIA.

GENERAL DISEASES.—The admissions in the *febrile group* of diseases numbered 51, being higher than in the former year; this was principally due to an increase of febricula, the cases, however, were all mild and soon yielded to treatment. 11 admissions for paroxysmal fevers are shown, chiefly ague; some of the men who suffered from this disease had been through the Egyptian campaign, and were liable to relapses on sudden changes of weather.

In the *constitutional group* of diseases there were only 14 admissions, due to a few cases of rheumatism, secondary syphilis, phthisis pulmonalis, and anæmia. There was no case of primary syphilis.

LOCAL DISEASES.—In this class there was a total of 130 admissions, of which respiratory affections caused 27, digestive disorders 45, gonorrhœa 15, and skin diseases 14. There is a decrease in the rate of prevalence of respiratory affections, attributed by the Principal Medical Officer in a great measure to the men wearing a flannel shirt in place of a cotton one. The increase in the rate of digestive disorders was due to the prevalence of tonsillitis, diarrhœa, and dyspepsia. There were 3 deaths in this class, two from apoplexy, and one from abscess of the liver.

Local injuries caused 33 admissions. The only case worthy of notice is that of a gunner, who was stabbed in the back by a civilian with whom he had had a quarrel; on admission, the man had 4 superficial incised wounds, which healed in a short time.

Invaliding.—Eight men were discharged as unfit for further service, being at the rate of 23·25 per 1,000, being 7·48 in excess of the rate for the previous year, but identical with the average rate for the preceding 10 years. The

Malta. disabilities were phthisis pulmonalis, imbecility, cardiac affections, ganglion, and debility.

Officers.—In an average strength of 20 officers, there were 13 attacks of illness, none of importance.

Women and Children.—In an average strength of 35 women, there were 8 cases of sickness, and one death took place from fever. The average strength of children was 104, and there were 31 cases of illness. There was one fatal case of small-pox in a child living in the Camerata, and one death occurred from valve disease of heart, teething, enteritis, and obstruction of intestine respectively.

Sanitary Conditions.—The sanitary state of the barracks and forts occupied by the corps is reported as being satisfactory. The vicinity of Lascaris Barracks is now in good condition, the necessary repairs to the court yard having been carried out by the civil authorities in accordance with the recommendations of the Medical Officer. The barracks at San Antonio Palace are badly ventilated and damp, and have no proper means of cooking.

The Medical Officer in charge, Surgeon L. Manché, M.D., urges that the men should be allowed a meat ration daily instead of only four days a week as at present; in this he is supported by the Principal Medical Officer. The water supply at Forts St. Lucien and Leonardo was found on analysis to be contaminated with sewage matter in the former place and with sea water in the latter; remedial measures were adopted.

Recruiting.—Out of 82 recruits inspected, 39 were found fit for service; of the 43 rejected, 14 were refused on account of defective vision, 8 for heart disease, 9 for age not in accordance with General Order, 4 for weakness of intellect, &c. The previous occupations of the recruits inspected were labourers, &c. 62, tradesmen 11, mechanics 3, clerks 2, students 3, and boy under 17 years 1.

III.—CYPRUS.

Cyprus. The average annual strength of warrant officers, non-commissioned officers and men was 512; and the force was composed of five companies of the 1st Battalion Royal West Kent Regiment, the 31st Company Royal Engineers, detachments of Departmental Corps, and Garrison Staff.

The total number of admissions into hospital was 259, of deaths 2, and of those constantly sick 14·00, being in the annual ratios of 505·8, 3·91, and 27·34 per 1,000 respectively, which evidence a highly satisfactory condition of health. The average sick time to each soldier was 9·98 days, and the average duration of each case of sickness was 19·73 days, the former being a decrease of 7·13 and the latter an increase of 3·01 days as compared with the corresponding periods in the previous year.

With one exception, that of 1882, former annual reports have shown a marked and rapid improvement in health since the first occupation of the island in 1878, when the rates of sickness and mortality were exceedingly high; year by year there was a considerable improvement in every respect up to 1881, when the admission rate had fallen from 4397·1 per 1,000 in 1878 to 640·0, and the death rate from 40·2 to 5·0 per 1,000. In 1882, however, the returns of sickness and mortality were greatly increased, the admission rate rising to 1023·6 and the death rate to 11·76 per 1,000; this was principally due, as mentioned in the report for the year, to the arrival of the Royal West Kent Regiment from Egypt, debilitated by the hardships of the recent campaign, and with enteric fever among the men.

The low ratios of the present year, therefore, compare most favourably with those of the preceding, the admission rate being less than half and the death rate a third only; but as the increase of sickness in 1882 may fairly be regarded as exceptional, as shown above, it would be more just, perhaps, to compare the rates of the year under report with those of 1881. In this comparison we still find progressive improvement in health, the rate of prevalence of sickness showing a decrease of 134·2, that of mortality one of 1·09, and that of constantly sick one of 3·26 per 1,000. Compared with the average annual ratios since the occupation of the island we observe, as would be expected, a considerable diminution in all.

From January to 29th May the infantry were stationed in Polymedia, and the Engineers and Departmental Corps at the Depôt, Limassol, when they marched for Troodos, returning to their former quarters in October. On 14th December one company of infantry was sent to Nikosia. In July 15 convalescents arrived from Egypt and were stationed at Troodos.

The more important of the health statistics of the different corps are shown in Abstract XLII. It is noticed that the Engineers enjoyed much better health than in former years; this is probably due to the men not having been exposed so much on public works.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract No. IV.

GENERAL DISEASES.—In the *febrile group* there were only 47 admissions, or at the rate of 91·8 per 1,000 as compared with 344·5 in the previous year, and 140·0 in 1881. There were no deaths; 31 of the cases are returned as febricula, the remainder as paroxysmal fevers; it would appear that in the opinion of the Senior Medical Officer many of the former should have been returned in the latter class. In the *constitutional group* of diseases 55 admissions are returned, or 107·4 per 1,000, a little less than in either of the two preceding years. Rheumatism only caused 6 admissions, but primary syphilis caused 44, or 85·9 per 1,000, a rate considerably in excess of that of the previous year and slightly higher than that of 1881. With the exception of five cases at Troodos, all occurred in Polymedia, and were contracted in the town of Limassol; there is reason to believe that the cases at Troodos also had their origin at Limassol. One case of phthisis pulmonalis is returned; this was the first admission for this disease since the occupation of the island. It is stated that phthisis pulmonalis is next to unknown amongst the natives of the place, and that delicate people predisposed to the disease do well when sent to reside in the island.

LOCAL DISEASES.—In the greater number of these orders of disease a decrease of admission rate more or less considerable is noticed in comparison with the return of the preceding year, and the various ratios differ a good deal from those in 1881, but on the whole class there is a decrease of 55·0 per 1,000. Three admissions are shown under diseases of the nervous system, of which one, for meningitis, proved fatal. Respiratory disorders only show 4 admissions, of which only one, a case of pneumonia, was at all serious. Digestive disorders caused 19 admissions, considerably less than in the preceding year, and less also than in 1881; the admission rate was 37·1 per 1,000. The cases were all slight, with the exception of one of typhlitis, one of chronic diarrhœa, in a convalescent from Egypt, and one of dyspepsia. Gonorrhœa caused 24 admissions, the rate of admission, 46·9 per 1,000, is slightly above half that of the average of the previous four years. Cutaneous affections give a higher admission rate than usual, this is accounted for by the occurrence of scabies; all the cases of this class were slight, except one of psoriasis.

Under the head of *poisons* a case of delirium tremens is returned, which proved fatal.

INJURIES.—Two admissions for general injuries were for burns, the result of an accident in blowing up the stump of a tree with gunpowder. Local injuries caused 37 admissions, 4 of which were for fractures, all the others were slight.

No case of *suicide* or *self-inflicted* injury is returned.

Invaliding.—Eight men only were invalided, the rate per 1,000, 15·63, is less by 7·89 than that in the previous year. but slightly higher than in 1881. The disabilities were secondary syphilis, phthisis pulmonalis, epilepsy, dementia, impaired vision, dyspepsia, diarrhœa, and wound of cornea, one case each.

Officers.—The average annual strength was 27, and there were 17 cases of illness, equal to a rate of prevalence of 629·6 per 1,000. There were no deaths, and no officers were invalided. With the exception of one of albuminuria there were no serious attacks of illness.

Women and Children.—In an average annual strength of 27 women there were but five admissions and no deaths, the rate of admission was therefore only 185·1 per 1,000. There was an average strength of 33 children, out of

Cyprus.

which 12 were placed on the sick list; there was one death from diarrhœa. Seven out of the total number of admissions were from this cause.

Sanitary conditions.—The Senior Medical Officer, Surgeon-Major Owen Owen, alluding to the excellent health of the troops, remarks, "that with "ordinary precautions as to sanitation, care as to exposure, and the observance "of temperance, combined with the annual migration from the heat of the "plains to Mount Troodos, a very good health rate is obtained in this command which will compare favourably with that of any station in the world. "No reference to any special causes of disease has been made by medical "officers in charge, and there has been a decrease in nearly all diseases (notably "in the febrile group), syphilis being an exception.

"The water supply at Polymedia, procured from a spring 4 miles off, is "brought to the camp in earthenware pipes and stored in a reservoir; this "arrangement is now complete, and to it may be in great measure attributed "the small amount of sickness from digestive affections. The supply is good "and abundant, sufficient not only for all personal purposes, but also for "flushing, and to provide water for a large bath which it is proposed shall be "constructed." At Troodos no disease attributable to any insanitary condition was produced, and the prevalence of tonsillitis and sore throat, which was noticed in 1882, did not exist in the year under report.

The Senior Medical Officer reports satisfactorily on the general sanitary condition of the camps and quarters as regards accommodation, lighting, warming, &c., and drainage; in one or two instances the latter requires a few improvements. The rations and cooking have been satisfactory, and the canteens well conducted. Among the sanitary improvements effected during the year may be mentioned the following at Nikosia: Thorough surface draining of the camp, repair of the roofs of several buildings, and certain alterations and improvements as to drainage.

At Polymedia.—Construction of a covered drain connecting the sink of hospital tank with sink of ablution room. Erection of a cook-house for the garrison cells. A stone lavatory for the hospital; water, however, is not yet laid on.

At Troodos.—Construction of wooden cells with corrugated iron roof. Rough furnaces for burning camp refuse have been built. At Limassol general improvement of the system of drainage has been undertaken.

IV.—ON THE HEALTH OF THE TROOPS SERVING IN THE DOMINION OF CANADA.

Sickness and Mortality.

Canada.

The only station in this command occupied by imperial troops was Halifax, where there was an average annual strength of 1,785 warrant officers, non-commissioned officers and men. The garrison was composed as follows:—Royal Artillery, three batteries; Royal Engineers, one company; two Infantry regiments, the 1st Battalion Yorkshire Regiment, and the 1st Battalion Royal Munster Fusiliers (the latter being relieved in November by the 2nd Battalion Royal Irish Rifles); detachments of the Departmental Corps and the Garrison Staff.

The admissions into hospital numbered 1,339, the deaths 8 (including that of an invalid who died after leaving the command), and the constantly sick 71·44; the resulting annual rates per 1,000 are — admission 750·1, death 4·48, and constantly sick 40·02. These ratios show an increase of sickness and mortality as compared with the previous year, the rate of admission being higher by 39·7 per 1,000, that of death by ·78, and that of constantly sick by 7·14 per 1,000; but compared with the average similar rates for the preceding 10 years, while the rate of admission shows an increase of 66·2 per 1,000, and that of constantly sick one of 6·93, there is a decrease in the rate of mortality of 1·86 per 1,000. The average sick time to each soldier was 14·61 days, and the average duration of each case of sickness 19·47 days, being longer than the corresponding periods in the previous year by 2·61 and 2·57 days respectively.

The most important of the health statistics of the various corps are shown in Abstract XLII.

The health of the Royal Engineers was good, the admission rate, 503·9 per 1,000, being the lowest; the Royal Artillery comes next in order, followed by the Royal Munster Fusiliers and Yorkshire Regiment. The 2nd Battalion Royal Irish Rifles had the highest rate of prevalence of sickness, but as the regiment only arrived in the command in November the time was too short to allow fair comparison.

The admissions and deaths in the different classes and orders of diseases are given in Abstract V.

General Diseases.—In the *febrile group* of diseases there were 40 admissions, equal to an annual rate of 22·4 per 1,000, which, though in excess of that of last year by 9·2, is still considerably less than the average rate of the previous four years. Eruptive fevers were represented by 3 cases of measles and 2 of scarlet fever, all mild cases. Enteric fever shows 2 admissions, but the Principal Medical Officer, Deputy-Surgeon General W. Cattell, remarks that they occurred in young soldiers, recently arrived from Bermuda, where the disease was no doubt contracted; he adds that to his knowledge no cases of this disease have occurred during the year among the civil population; 21 cases of simple continued fever and febricula, and 4 of ague are returned. Erysipelas caused 7 admissions; some of the cases were serious, but all eventually did well. One fatal case of pyæmia occurred.

In the *constitutional group* of diseases the admission rate was 151·3 per 1,000, a decrease of 24·2 on that of the preceding year, and to a greater degree below the average of four previous years. Rheumatism caused 103 admissions, a larger number than in 1882, but the acute cases were not so numerous. The sudden and daily variations of temperature to which the coast is liable render rheumatic and neuralgic affections very common. The admission rates for primary and secondary syphilis, 44·8 and 34·7 per 1,000 respectively, show reductions of 22·9 and 24·0 per 1,000 as compared with the foregoing year; but the increased prevalence of gonorrhœa brings the total rate for venereal

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affections to very little less than that in 1882. Tubercular affections caused 21 admissions, 19 for phthisis pulmonalis, from which there were 3 deaths, one being in an invalid.

LOCAL DISEASES.—Diseases of the nervous system caused 17 admissions, among which were two of mental disease. Affections of the eye numbered 26, or 14·6 per 1,000, a reduction on the former year; most of the cases were mild, but one of purulent ophthalmia was severe. A case of a severe form of blepharospasmus is reported, in which invaliding was eventually necessary. Diseases of the circulatory system caused 20 admissions, of which 4 were for valve disease of heart, 3 requiring invaliding; there was no death. A slight increase is noticed in diseases of the respiratory system, the admission rate being 73·9 per 1,000. The Principal Medical Officer states that bronchial affections, though of slighter character, were greatly in excess of the previous year, but the more severe forms of acute disease were much diminished, only 9 cases of pneumonia occurring as compared with 43 of pneumonia or pleurisy in the former year. Two cases of pneumonia were severe, and terminated fatally. The admission rate for digestive disorders, 112·0 per 1,000, is a slight decrease on that of 1882. Out of the total number of cases, 200, there were 68 cases of tonsillitis, this is very common, and fresh arrivals are very prone to the affection; sore throat also caused 117 admissions. Diarrhœa and dyspepsia caused a good many admissions, the latter, in not a few cases, due to intemperate habits; one death is recorded from peritonitis. The increase in the admission rate of urinary diseases is attributable to the greater prevalence of gonorrhœa. In the remaining orders of local diseases there are no material differences in the rates of prevalence compared with the previous year, nor do any of the cases call for special mention.

POISONS.—Alcohol caused 36 admissions and delirium tremens 4, one of the latter proved fatal.

INJURIES.—Two hundred and one admissions were caused by various injuries. Contusions, wounds, sprains, &c. are said to have been frequently the result of intemperance indirectly. Fractures caused 7 admissions, in two of which, fractures of the leg, invaliding was necessary. One case of accidental gunshot wound is returned, a man was struck on the forehead by some shot from a fowling piece, but no serious injury was sustained.

There was no instance of *suicide* or *self-inflicted* injury.

Invaliding.—The number of men sent home as invalids is 79, and of those finally discharged 28, being in the annual ratios of 44·25 and 15·68 per 1,000 respectively. The rate of invalids sent home is very nearly four times that of the previous year, and double that of the average of 10 years. The rate of final discharge is less than that of 1882 by 8·63 per 1,000, and fractionally less than the average. The high rate of invaliding is increased by the fact that on arrrival of the Royal Irish Rifles from Bermuda it was necessary to invalid 12 men immediately, who would have been sent home from that place had the regiment remained there. The principal causes of invaliding were rheumatism, phthisis pulmonalis, nervous affections, cardiac and respiratory diseases, and debility. The chief causes of final discharge were tubercular diseases, diseases of the circulatory system, and debility.

Officers.—In an average annual strength of 92 officers there were 31 attacks of illness, or 335·8 per 1,000, a rate slightly higher than in the preceding year. There was no death and no invaliding. No serious case occurred.

Women.—The average strength was 148, and the attacks of illness 62, and deaths 2. The admission rate was 419·5 per 1,000. The principal causes of illness were respiratory disorders, uterine affections, and debility. One of the deaths was due to puerperal fever, and the other to convulsions.

Children.—In an average annual strength of 312 there were 119 attacks of illness and 23 deaths, being in the annual ratios of 381·4 and 73·71 per 1,000 respectively, the former rate is lower, but the latter considerably greater, than in the former year. Scarlet fever was unusually prevalent, 13 cases occurred; whooping cough was also prevalent to some extent, and, in addition, bronchial affections and diarrhœa caused much of the illness. The deaths were due to diarrhœa in 8 cases, convulsions 4, scarlet fever, asthenia, and enteritis, 2 each, and whooping cough, tabes mesenterica, croup, bronchitis, and asphyxia by drowning, 1 case respectively.

Sanitary conditions.—The Principal Medical Officer reports that "the

" general health of the troops was good during the year, no unusual sickness " occurred, nor were there any cases attributable to insanitary causes. *Canada.*

"The several barracks and forts in occupation were, throughout the year, in " a satisfactory sanitary condition; and the lighting and warming were " sufficient. The rations were good and the cooking was satisfactory.

"The following alterations and improvements were effected during the " year.

"Wellington Barracks.—Re-modelling of latrines and trapping of drains; " water laid on; improvement to married quarters, cook-house, and sergeants' " mess kitchen.

"Citadel.—Large portion of casemates roofed over to prevent dampness. " Stoves provided to washhouses; also means for heating water for ablution " purposes. Dry earth closet provided.

" South Barracks.—Sergeants' mess. Ceiling raised, windows enlarged, and " ventilation improved.

"Royal Artillery Park.—Improvements in ventilation."

V.—ON THE HEALTH OF THE TROOPS SERVING IN BERMUDA.

Sickness and Mortality.

Bermuda.

The average annual strength of warrant officers, non-commissioned officers and men serving in Bermuda was 1,434. The composition of the garrison was similar to that of the previous year, viz., two batteries of Garrison Artillery, five companies of Royal Engineers, one regiment of Infantry, detachments of Departmental Corps, and the Garrison Staff. The following changes occurred:—The 30th Company Royal Engineers arrived in October, and the 9th Company left in November; the 2nd Battalion Royal Irish Rifles left in November, on being relieved by the 2nd Battalion York and Lancaster Regiment.

There were 873 admissions into hospital and 7 deaths, and the average number constantly sick was 52·89. The rate of admission per 1,000 was therefore 608·8, that of death 4·87, and that of constantly sick 36·88. As compared with the corresponding rates for the previous year a decrease has occurred of 52·3 in the admission rate, and one of 4·12 per 1,000 in the death rate; but in the rate of constantly sick there is a slight increase, 3·84 per 1,000; and in comparison with the average similar rates for the preceding decennial period the rates of attacks of illness and mortality are less by 27·6 and 2·94 per 1,000, but that of constantly sick is 3·58 per 1,000 higher. The average sick time to each soldier was 13·46 days, and the average duration of each case of sickness 22·11 days, being longer than the corresponding periods in the preceding year by 1·40 days and 3·86 days respectively.

Some of the more important of the health statistics of the corps which served in the garrison during the year will be found in Abstract XLII.

The 2nd Battalion York and Lancaster Regiment (which had, however, been but two months in the command) furnished the highest rate of admission, 1176·1 per 1,000, and the Royal Artillery the lowest, 416·7; the 2nd Battalion Royal Irish Rifles gave 550·4, the Royal Engineers 637·2, and the Garrison Staff and Departments, in a strength below 100, a rate of 320·9 per 1,000. The highest annual death rate occurred in the Royal Artillery, 10·42 per 1,000; the rate in the Royal Irish Rifles was 5·98, and in the Royal Engineers 3·05 per 1,000. No deaths occurred in the York and Lancaster Regiment, or in the Garrison Staff and Departments. The admissions and deaths in the various classes and orders of diseases are shown in Abstract No. VI.

GENERAL DISEASES.—In the *febrile group* of diseases 50 admissions and 3 deaths are recorded, equal to annual rates of 34·9 and 2·09 per 1,000, the former being less than that of the previous year by 30·1, and than that of the average of four years by 12·8 per 1,000, and the latter higher than in 1882, and than the average by ·70 and ·08 per 1,000 respectively. Eruptive fevers are represented by two cases only of scarlet fever. Enteric fever caused 10 admissions and 3 deaths, as compared with 21 cases and 2 deaths in the preceding year, the rate of prevalence being 7·0 per 1,000, somewhat less than half; the rate of mortality is higher by ·70 per 1,000.

The Principal Medical Officer, Deputy Surgeon General L. Kidd, M.B., states that three of the cases occurred at Prospect, one respectively in March, May, and June, and seven at St. George's, viz., one in November and six in December. Two of the deaths occurred at Prospect, one in January and one in April; the third death occurred at St. George's in December.

The admissions for other continued fevers were only 34 in number, and demand no special mention; the attacks of paroxysmal fever were limited to two attacks of ague and one of remittent fever.

In the *constitutional group* of diseases there are recorded 208 admissions and 2 deaths, being in the annual ratios of 145·1 and 1·39 per 1,000 respectively, the former being greater than the corresponding rate for the previous year by 58·0 per 1,000, and almost double that of the average of four preceding years, *Bermuda.*

and the latter being less than in 1882 by ·69 per 1,000, and slightly below the average.

The marked increase of admission rate is almost entirely owing to greater prevalence of syphilis. Rheumatism was slightly in excess of the previous year, but primary syphilis caused 116, and secondary 35 admissions, giving the annual admission rates of 80·9 and 24·4 respectively per 1,000, which exceed those for 1882, the former by 33·9 and the latter by 17·5 per 1,000, and the average rates for four years by 48·7 and 16·8 per 1,000 respectively. The Principal Medical Officer remarks that a marked prevalence of this class of disease occurred during the year 1882, continued during the first 10 months of 1883, and was seriously augmented by the arrival on 1st November of the York and Lancaster Regiment from Aldershot, with a total number of 50 sick, of whom 47 were suffering from venereal diseases, of which primary syphilis furnished more than two thirds. Tubercular diseases show 11 admissions and 2 deaths, both of which were due to phthisis pulmonalis.

LOCAL DISEASES.—Diseases of the nervous system furnished 15 admissions, including one for sunstroke, three for epilepsy, and one for mental unsoundness. Diseases of the circulatory system gave an admission rate of 9·7 per 1,000, less than half that of the previous year. The admission rate for diseases of the absorbent system shows an increase, 38 admissions occurred from inflammation of glands (in almost all instances the inguinal glands); care was taken to exclude cases of a venereal origin, and in the majority of instances the admissions were the result of strains among men employed on the works. Respiratory diseases were less numerous, 42 admissions being recorded, of which 38 were bronchial affections. Digestive disorders caused 148 admissions and no death; the annual admission rate, 103·2 per 1,000, is less than that for the previous year by 19·2. The chief causes of admission were diarrhœa, dyspepsia, and colic. In many instances the cases of dyspepsia were, it is reported, attributable to intemperance. There were 6 cases of hepatic affections. Among urinary affections, gonorrhœa caused 34 admissions, the rate, 23·7 per 1,000, being almost identical with that of the preceding year, and, as then, the comparatively small number of the cases of this affection is noticeable, syphilis being so prevalent. Among 16 admissions for other affections of this order a case of Bright's disease, and three cases of stricture of the urethra, deserve mention. Diseases of the cellular tissue and the cutaneous system give admission rates lower than in the previous year and considerably below the average.

Debility caused 25, and *poisons* 10, admissions, of the latter 4 were due to delirium tremens and 6 to alcholic poisoning; no death occurred.

Injuries.—Under the head of general injuries no admission or death occurred, but local injuries caused 143 admissions and 2 deaths. The annual rate of the former shows a decrease of 34·5 per 1,000. The admissions were for wounds, sprains, and contusions chiefly, and the deaths were due to fracture of the skull from a fall in one case, and in the other to gunshot wound of the head, *suicidal*; a sergeant, Royal Irish Rifles, having shot himself while under arrest.

Invaliding.—The number of men invalided home was 29, and of men finally discharged 8, being in the annual ratios of 20·22 and 5·58 per 1,000. The rate of invalids sent home is higher than that of the former year by 4·31, and fractionally than that of the decennial average; while the rate of men finally discharged is lower by 2·02 per 1,000 than that of 1882, and by 7·57 than that of the average of the preceding 10 years. The chief causes of invaliding home were rheumatism, syphilis, phthisis pulmonalis, cardiac disease and debility; and the disabilities which necessitated final discharge were rheumatism, tubercular disease, diseases and the ear, and of the circulatory and digestive systems, and the result of injury.

Officers.—In an average annual strength of 64, the number of cases of sickness was 20, being at the annual rate of 312·5 per 1,000, which is lower than the rate for the previous year by 269·6. The only headings under which the number of admissions exceeds one are sprain, contusion, and debility. One case of *self-inflicted* gunshot wound of the chest occurred, a young officer shot himself through the chest; no cause could be assigned beyond temporary unsoundness of mind; he eventually recovered. Two officers were invalided, one for hepatitis, and the other for sprain.

Bermuda.

Women.—In an average annual strength of 102 women, 28 cases of sickness and 2 deaths occurred, being at the annual rates of 274·5 and 19·60 per 1,000, the former lower than the corresponding rate for the previous year by 182·6, and the latter higher by 10·08. The most frequent cause of sickness was debility. Enteric fever, bronchitis, diarrhœa, and sprain each caused 2 cases; no tubercular affection occurred. The causes of death were enteric fever in one case and uterine hæmorrhage in the other.

Children.—In an average annual strength of 192 occurred 65 cases of sickness and 6 deaths, giving per 1,000 the admission rate of 338·5 and the death rate of 31·25. Compared with the corresponding rates for the previous year the former is higher by 88·5 and the latter by 7·22 per 1,000. Scarlet fever caused four cases and measles one case, and bronchial affections and diarrhœa were the chief causes of admission. The deaths were due to diarrhœa four cases and teething and bronchitis one case respectively.

Sanitary Conditions.—The Principal Medical Officer reports that "the " general health of the troops in the command during the year under report " was remarkably good, and no special sanitary recommendations have been " made or considered necessary. No extensive improvement or alteration of " drainage has been effected; in this respect the condition of the vicinity of " the camps, barracks, and hospitals has been satisfactory.

"The town of St. George's continues to present the insanitary condition of " cesspits and unsatisfactory surface drainage. The close proximity of the " barracks to the town may have some influence in maintaining the greater " comparative prevalence of enteric fever among the troops.

"The ill-adapted structure and unfavourable situation of the hired barracks " in Hamilton for the Commissariat Department have been specially remarked " upon, and the matter has for some time been the subject of correspondence " and consideration.

"The want of a hospital for women and children is much felt. Efforts to " establish one have been unsuccessful from various causes, chiefly financial " difficulties."

VI.—ON THE HEALTH OF THE TROOPS SERVING IN THE WEST INDIES.

Sickness and Mortality.

I.—White Troops.

West Indies Command.

The average annual strength of warrant officers, non-commissioned officers and men was 831. The force in the Command consisted of two batteries Royal Artillery; the 1st Battalion the Royal Scots; detachments Royal Engineers, and Departmental Corps; the Garrison Staff; and the sergeants of the West India Regiments. The head-quarters of the Royal Scots arrived from Malta at Barbados on 21st March.

The number of men admitted to hospital was 988; there were 12 deaths, including that of an invalid who had left the Command, and the average number constantly sick was 55·82.

The annual rates per 1,000 derived from these figures are, therefore, admissions 1188·9, deaths 14·44, and constantly sick 67·17. In comparison with the corresponding rates for the preceding year a considerable increase is noticed in all amounting to 514·1 per 1,000 in the case of admission, 4·28 in that of death, and 29·89 per 1,000 in that of constantly sick; and compared with average similar rates for the preceding 10 years is observed an increase of 255 per 1,000 in admission rate and 23·57 in constantly sick rate, but a decrease of 1·32 per 1,000 in the death rate. The average sick time to each soldier was 24·52 days, and the average duration of each case of sickness 20·62 days, being longer than the corresponding periods in the previous year by 10·91 and ·46 days respectively. The rates of sickness and mortality are considerable, but are more marked in comparison with those of the preceding year, which were unusually low. The Principal Medical Officer, Deputy Surgeon-General F. Holton, M.B., states "that the increase in the sick rate was in great "measure due to the prevalence of febrile affections among the newly arrived "Royal Scots at Barbados and Trinidad."

The more important of the health statistics of the various corps are shown in Abstract XLII., and the admissions and deaths in the different classes and orders of diseases in Abstract VII.

General Diseases.—The *febrile group* caused 279 admissions and 7 deaths, equal to 335·7 and 8·42 per 1,000 respectively, the increase in admission rate over that of the previous year being 291·0 per 1,000, and in that of death 6·39 per 1,000; in comparison, however, with the average of the similar rates for the four previous years there is an increase of 134·0 per 1,000 in the rate of prevalence, but the rate of mortality is less than half. One case of scarlet fever occurred, it is said to have been contracted on board ship, and soon recovered. Enteric fever caused 4 admissions at Barbados, they were all severe cases, and two of them proved fatal; it is stated that no cause can properly be assigned for the origin of the disease in any of the cases. Other continued fevers were very numerous, 250 in all, most of the cases occurred amongst the men of the Royal Scots; no deaths happened, but 16 men were so debilitated that it was necessary to invalid them to England; some few were transferred to the hills at Newcastle, with benefit. Among 18 cases of paroxysmal fevers were 13 of remittent fever, of which 11 occurred at Trinidad, with fatal issue in 3 cases; the disease was prevalent in April and May, and was of a severe type. At Port Royal, Jamaica, two cases of yellow fever occurred, both of which died. A case of simple cholera is returned from Barbados, the man did well and returned to duty in a few days. Among other diseases of this group is noticed a case of pyæmia occurring in a man who had sustained a severe scalp wound by falling down a gully; he made a complete recovery.

West Indies Command.

In the *constitutional group* of diseases there were 169 admissions and one death (an invalid); the admission rate, 203·4 per 1,000, is greater than that of the preceding year by 87·6, and is also considerably above the average of four years. Rheumatism caused 50 admissions, the rate of prevalence, 60·2 per 1,000, shows a considerable increase, many of the cases were the sequelæ of fevers, and occurred among the Royal Scots. The admission rates for primary and secondary syphilis were 103·5 and 33·7 per 1,000 respectively, being higher than the corresponding rates of last year by 42·5 and 11·4 per 1,000. The total rate for all forms of venereal disease, 227·5 per 1,000, is an increase of 83·2 on that of 1882. Tubercular affections show a decrease, only 5 cases being returned; a death from phthisis pulmonalis occurred in an invalid.

LOCAL DISEASES.—The rate of prevalence of nervous affections shows an increase; the cases include three of mental disease, one of sunstroke, and one of meningitis, the last proved fatal. Cardiac disease caused 12 admissions, and one death from valve disease. Respiratory affections numbered 20, and were mild in character. Digestive disorders were decreased in prevalence, the rate, 127·6 per 1,000, being less by 18·9 than in the former year; dyspepsia, tonsillitis, diarrhœa, and hepatic diseases caused most admissions; from the latter class also there were 2 deaths, one from abscess of liver and one from hepatitis. Urinary affections, principally gonorrhœa, were more numerous; the admission rate, 103·5 per 1,000, is increased by about a third. Cutaneous affections also were more prevalent.

The admissions for *debility* were 27 in number, and were chiefly the result of fevers; and under *poisons* are returned 10 admissions, the result of alcohol.

Injuries.—No case of general injury is recorded, but there were 104 of local injury, or, at the rate of 125·2 per 1,000, a little less than in the previous year. Most of the cases were of a trivial character, but there was one case of a serious nature, a man fell from a verandah, a height of 27 feet, and sustained fracture and dislocation of the spine; he fractured the spinous process of the 12th dorsal vertebra, and for some time there was partial paralysis of the lower extremities. At the time of report he was still unable to hold himself erect or to walk any distance.

No case of *suicide* or self-inflicted injury is returned.

Invaliding.—The number of men invalided home was 47, and of men finally discharged 13, being in the annual ratios of 56·56 and 15·64 per 1,000 respectively, which are greater than the corresponding ratios in the preceding year by 46·40 and 3·45 per 1,000; they are also greater than the average of the previous 10 years by 32·96 and 1·72 per 1,000 respectively. The principal causes of invaliding were fevers 18 cases, phthisis pulmonalis 7, diseases of the nervous system 5, and debility (the result of fever) 7. The disabilities causing final discharge were rheumatism, phthisis pulmonalis, impaired vision, deafness, debility, and diseases of the circulatory and digestive systems.

Officers.—The average annual strength was 109, and there were 66 cases of sickness. There was one death, and invaliding was necessary in four instances. The annual rates were therefore 605·5, 9·17, and 36·70 per 1,000 respectively. The rate of sickness is higher than in the preceding year, but the death and invaliding rates lower. Fevers and disorders of the digestive system were the chief causes of admission, the death was due to dysentery and occurred at Barbados, and the invaliding was caused by palpitation, phthisis pulmonalis, and ophthalmia.

Women.—In an average annual strength of 74 women there were 35 cases of illness and 1 death, being in the annual ratios of 472·9 and 13·5 per 1,000 respectively. The rate of sickness was less than in 1882. The chief causes of illness were fevers, digestive disorders, uterine affections, and debility. The death was due to hepatitis.

Children.—The average annual strength was 126, and there were 48 attacks of illness and 2 deaths, being in the annual ratios of 380·9 and 15·87 per 1,000 respectively. The rate of prevalence is greater, but that of mortality less, than in the previous year. Measles was the cause of 26 cases, and the remainder were principally due to fevers, and bronchial and digestive disorders. One of the deaths was caused by remittent fever, and the other by bronchitis.

Sanitary Conditions.—The Principal Medical Officer reports that the health of the white troops in the Command has been tolerably good; they were quartered chiefly at Barbados, Jamaica, and Trinidad, a few men only being stationed at Honduras, Bahamas, and Demerara.

West Indies Command.

The accommodation in barracks and hospitals was good and sufficient. At Port Royal, Jamaica, from 17th March to 5th April, the detachment of white troops occupied a camp of isolation, at "Papine," in consequence of cases of yellow fever having occurred. The water supply was ample, except at Newcastle, Jamaica, where a scarcity is sometimes experienced at the hospital in very dry weather, when it is necessary to fetch water by hand. Drainage is satisfactory, except at the Station Hospital, Barbados, where owing to the roots of trees forcing their way into them the drains become choked, necessitating constant repair. The conservancy arrangements are generally good. The rations were good, and means of cooking satisfactory.

Among the sanitary improvements which were carried out are the provision of ridge ventilation to the East Range, Dockyard Barracks, improvements in ventilation to A and B blocks, and to the carpenters', tailors', and shoemakers' shops in the Brick Barracks, Barbados, also in the commanding officers' quarter at Bush Hill.

II.—BLACK TROOPS.

The average annual strength of non-commissioned officers and men was 1,087, exclusive of white sergeants. The black troops serving in the Command consisted of the 1st and 2nd West India Regiments, furnishing detachments at Barbados, Nassau, Bahamas, and British Honduras; and the corps of military labourers at Barbados. During the year the head-quarters 2nd West India Regiment proceeded to the West Coast of Africa in relief of the 1st West India Regiment. The detachments 2nd West India Regiment at Honduras and Nassau were also relieved by detachments 1st West India Regiment.

The admissions into hospital numbered 1,118, the deaths 10, and constantly sick 66·28, the ratios per 1,000 of strength are, therefore, 1028·5, 9·20, and 60·97 respectively. The admission rate is almost identical with that of the previous year, but there is a decrease in the rate of mortality of 7·76 per 1,000, and an increase of that of constantly sick of 1·50 per 1,000. Compared with the corresponding average rates for the preceding 10 years there is a decrease of 89·6 and 8·03 per 1,000 in the admission and death rates respectively, but an increase of 3·41 per 1,000 in the rate of constantly sick. The average sick time to each soldier was 22·25 days, and the average duration of each case of sickness 21·64 days, the former being longer than the corresponding period in 1882 by ·50 and the latter by ·49 days. The admissions and deaths in the different classes and orders of disease are shown in Abstract VIII.

General Diseases.—In the febrile group of diseases there were 171 admissions, or at the rate of 157·3 per 1,000, being greater than that of the former year by 12·7, but still considerably below the average. Eruptive fevers show 51 admissions, all being for measles, these occurred principally at Jamaica and Honduras. Simple continued fever caused 38 cases, with one exception all at Jamaica. There is a considerable reduction in paroxysmal fevers as compared with the former year, the number of cases being 70 instead of 127. Of these 44 were ague, the disease being most prevalent at Demerara and Honduras; the remaining 26 cases were remittent fever, of which 21 happened at Honduras, 1 at Trinidad, 2 at Demerara, and 2 at Jamaica, one of the latter cases proved fatal. No case of yellow fever occurred.

The *constitutional group* shows an admission rate of 229·1 and a death rate of 3·68 per 1,000, the former being lower by 38·8 and the latter by 3·46 than the similar rate in the previous year. Rheumatism was less prevalent, and also phthisis pulmonalis, from which, however, two deaths occurred. The rates of admission for primary and secondary syphilis were 125·1 and 27·6 per 1,000, the former showing a reduction of 24·0 and the latter an increase of 2·6 per 1,000. One death occurred from secondary syphilis. Including gonorrhœa, the total admission rate for venereal disease amounted to 306·3 per 1,000, which, however, is less than that in 1882, by 16·0. Under other diseases of the constitutional group is recorded a death from diabetes.

LOCAL DISEASES.—Among 22 admissions for diseases of the nervous system were 4 for mental disease, and among 22 admissions for diseases of the

West Indies Command.

circulatory system were 19 for palpitation. Diseases of the respiratory system had an admission rate of 62·6 per 1,000, an increase of 25·1; pneumonia was prevalent, and also bronchial affections; there were two deaths from the former disease, and one from laryngitis. Digestive disorders, with an admission rate of 81·0 per 1,000, were considerably less prevalent than in the previous year. Dysentery and diarrhœa, principally at Jamaica, furnished the majority of the admissions, and one death occurred from cirrhosis of the liver. Among urinary affections gonorrhœa and its sequelæ caused an admission rate of 153·6 per 1,000, much the same as in the preceding year; there were 11 admissions for other diseases of this order, of which one had a fatal termination.

No case of general injury occurred, but 112 admissions for local injuries are returned, which were of an ordinary character and call for no remark, except one for gunshot wound. In this case a man was accidentally struck at the rifle range, the bullet injured the elbow joint; it is stated that the man made a fair recovery, though from the stiffness of the joint it will probably be necessary to invalid him. No case of *self-inflicted* injury is recorded.

Invaliding.—54 men, or 49·68 per 1,000, were discharged the service by invaliding; the rate per 1,000 is greater than that of the previous year by 7·72, and than that of the average of 10 years by 8·35. The principal causes of invaliding were secondary syphilis, tubercular disease, diseases of the nervous, circulatory, and generative systems, and injuries.

Sanitary Conditions.—The Principal Medical Officer reports that the health of the black troops has been tolerably good, the sanitary state of the barracks and hospitals satisfactory, and accommodation sufficient, Water supply good and sufficient, except at Demerara during the dry season, when it is inadequate for ablution purposes. Rations good, and means of cooking satisfactory.

VII.—ON THE HEALTH OF THE TROOPS SERVING IN WESTERN AFRICA.

Sickness and Mortality.

I.—White Troops.

West Africa.

The white troops consisted of the European non-commissioned officers of the West India Regiments and the officers serving in the Command. The average annual strength of the former was 10, the admissions into hospital 26, and there were no deaths. The rate of sickness was therefore high, but not so high as in the preceding year. Remittent fever alone caused 20 of the admissions. Three cases of remittent fever and one of debility necessitated invaliding.

The average annual strength of officers was 26, and the attacks of illness 66; there were no deaths, but 7 officers were invalided. The rate of sickness was 2538·3 per 1,000, considerably higher than in the preceding year. The prevailing disease was remittent fever, nearly two thirds of the cases being due to it. No other disease shows great prevalence.

II.—Black Troops.

The troops stationed on the west coast of Africa during the year were, at Sierra Leone, the head-quarters 1st West India Regiment up to April, when it was succeeded by the head-quarters 2nd West India Regiment, and at Cape Coast Castle a detachment 1st West India Regiment until relieved by a detachment 2nd West India Regiment.

The average annual strength of non-commissioned officers and men was 492, the admissions into hospital 866, the deaths 13, and the number constantly sick 30·81. The annual rates from these figures are therefore—admissions, 1760·1 per 1,000; deaths, 26·42; and constantly sick, 62·62 per 1,000.

Compared with the corresponding rates for the previous year an increase has occurred in that of admission of 513·5 per 1,000, and a slight increase, 1·78 per 1,000, in that of constantly sick; there is, however, a slight reduction, 1·16, in the death rate. In comparison with the average similar rates for the preceding 10 years, the admission and constantly sick rates are increased by 140·9, 2·08, and ·12 per 1,000 respectively. The average sick time to each soldier was 22·86 days, and the average duration of each case of sickness 12·99 days, the former being fractionally longer, and the latter shorter, by 4·83 days, than the corresponding period of the preceding year.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract IX.

General Diseases.—In the *febrile group* of diseases 400 admissions are returned, equal to an annual rate of 813·0 per 1,000, which is considerably in excess of that for the previous year, 184·5 (which was very low), and is greatly above the average; there was, however, but one death. Thirty-seven of the cases were due to measles, which was prevalent among the men of the 2nd West India Regiment on their arrival from the West Indies. With one exception, a case of influenza, all the other admissions in this group were due to paroxysmal fevers, and all are returned as remittent fever. While this form of fever was prevalent at Sierra Leone, it was greatly more so at Cape Coast Castle, the rate of prevalence amounting to 1253·1 per 1,000 of strength. The type of the disease is said to have been severe. One death occurred at Cape Coast Castle.

West Africa.

In the *constitutional group* of diseases 119 admissions and 5 deaths are returned, being in the annual ratios of 241·9 and 10·16 per 1,000, the former being greater by 52·3 and the latter less by 3·63 per 1,000 than the corresponding rates for the previous year; the admission rate is, however, slightly under the average. The increase of disease is chiefly owing to the greater prevalence of rheumatism and primary syphilis. The admission rate for primary syphilis was 115·8 and for secondary syphilis 10·1 per 1,000, as compared with 98·3 and 10·3 in the preceding year. The rate of prevalence of primary syphilis is not much above the average, while that of secondary syphilis is considerably below it. Including gonorrhœa, the total rate for venereal diseases was 298·7 per 1,000, slightly lower than in 1882. Tubercular diseases show 8 admissions, 7 being for phthisis pulmonalis, out of which 5 deaths occurred.

LOCAL DISEASES.—In the majority of the orders of diseases in this class a decrease in rate of prevalence has occurred. Diseases of the nervous system caused but 3 admissions, including 1 for encephalitis, which proved fatal. In 10 cases of cardiac affection were 4 of valve disease, one of which had a fatal issue. Respiratory affections caused 26 admissions, of which 16 cases, two of them fatal, were bronchitis. Digestive disorders were slightly under the average in point of numbers; one death occurred from hepatitis; dysentery, diarrhœa, and hepatic affections were the chief causes of admission. Under urinary affections gonorrhœa is seen to have had a greater prevalence than in the preceding year, though not equal to the average. Bright's disease was the cause of one death. The remaining orders of disease call for no special mention.

Poisons show 3 admissions, 2 from alcohol, and 1, with fatal result, from poisoning by phosphorus. The case was briefly as follows:—A man mixed some phosphorus paste, used for killing rats, in his mess tin; he was afterwards seen to drink from this tin, although his comrades warned him against doing so. It is stated that he had no suicidal intent.

Forty-five admissions are shown for *local injury*, but none were of moment, except one for fracture of the skull.

Invaliding.—No men were discharged the service by invaliding during the year.

Women.—In an average annual strength of 40 there were 78 cases of sickness and 2 deaths, being in the annual ratios of 1,950 and 50·0 per 1,000 respectively; 40 of the total number of cases were remittent fever. The deaths were due to pneumonia and phthisis pulmonalis.

Children.—The average annual strength was 31; the attacks of illness were 75 in number, and there were 4 deaths. The rate of sickness amounted therefore to 2419·3, that of mortality being 129·03 per 1,000. Remittent fever, measles, and diarrhœa caused nearly all the attacks of illness, and the deaths were due to remittent fever in two cases and bronchitis in one.

Sanitary Conditions.—The Senior Medical Officer reports that at Sierra Leone the sanitarium which was built in 1880 on Leicester Peak, a distance of about three miles from barracks, and at a height of about 1,700 feet, is now abandoned, owing to the difficulty there existed in communication, and a much better site has been chosen on the plateau at the top of Kortright Hill, where a sanitarium and barracks for 100 men are shortly to be built. This plateau is about 1,200 feet above sea level, and within easy distance of barracks, and good water and provisions can be obtained on the spot.

At Cape Coast Castle the town is in a very insanitary condition, and nothing but an entirely fresh system of drainage is likely to do any good. The castle itself is in a good sanitary condition.

VIII.—ON THE HEALTH OF THE TROOPS SERVING AT THE CAPE OF GOOD HOPE AND AT ST. HELENA.

Sickness and Mortality.

Cape of Good Hope and St. Helena.

The Principal Medical Officer, Deputy Surgeon-General E. M. Sinclair, reports that the average annual strength of warrant officers, non-commissioned officers and men was 2,850, and that the composition of the force did not vary to any great extent during the year, the changes being chiefly due to the departure of time-expired men and invalids, and to the arrival of drafts. At the close of the year some movements of troops took place, but, with the exception of the arrival of the 32nd Company Royal Engineers from Gibraltar, and a battery of Artillery from Mauritius, replaced by a company and battery respectively from South Africa, the moves have taken place within the Command.

The distribution of the troops was as follows:—In Natal, average strength 1,752, the 6th Dragoons, a battery Royal Artillery, the 1st Battalion Welsh Regiment, the 2nd Battalion Northumberland Regiment, until relieved in December by the 1st Battalion Argyll and Sutherland Highlanders, and detachments Departmental Corps. In the Western District, Cape Colony, average strength 923, one company Royal Engineers, a garrison battery Royal Artillery, the 1st Battalion Argyll and Sutherland Highlanders, relieved by 2nd Battalion Northumberland Regiment, and detachments Departmental Corps. In St. Helena, average strength 175, one battery Royal Artillery, a detachment of Infantry, and detachments Royal Engineers and Departmental Corps.

The number of admissions into hospital in the whole Command was 1,856, the deaths 13, including two of invalids who died after arrival at home, and the average number constantly sick 137·65. From these figures it is found that the admission rate was 651·2 per 1,000, the death rate 4·56, and the rate constantly sick 48·30 per 1,000. Compared with the corresponding rates for the previous year that of admission shows a decrease of 45·8 per 1,000, that of death one of 14·96, and that of constantly sick one of 8·53 per 1,000. In comparison also with the average of similar ratios for the preceding 10 years there is a considerable decrease in the rates of sickness and mortality, particularly in the latter, and to a slight extent there is a decrease in the constantly sick rate.

The average sick time to each soldier was 17·63 days, and the average duration of each case of sickness 27·07 days, being less than the corresponding periods in the previous year by 2·93 and 2·43 days respectively.

In the island of St. Helena alone in an average annual strength of 175 there were 69 admissions, no deaths, and average daily sick 4·42. The admission rate was 394·3 per 1,000.

With the exception of a small force having been in the reserved portion of Zululand for four months in the early part of the year, and again for four months from September, the troops have occupied the same stations as at the close of 1882.

The health of the troops was good during the year; the sickness and mortality less, especially the latter, due to the diminished prevalence of enteric fever. The more important of the statistics of the different corps are shown in Abstract XLII. The highest rate of admission, 712·0 per 1,000, occurred in the Argyll and Sutherland Highlanders, followed by the Royal Artillery with 705·4. The highest rate of mortality, 19·11 per 1,000, is found in the Staff and Departments, the average annual strength, however, is very small. The Argyll and Sutherland Highlanders show a rate of mortality of only 2·87 per 1,000, and in the Northumberland Regiment there were no deaths.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract No. X.

GENERAL DISEASES.—*Febrile group.*—The total number of admissions was 155, and of deaths 3, being in the annual ratios of 54·4 and 1·05 per

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1,000 respectively. As compared with the rates for the previous year there is a very marked decrease both in admission and mortality, and also when compared with the average similar rates for the preceding four years. The rate of admission for the year under report is hardly more than a third of that of 1882 and than a fourth of the average. The decrease of admission has occurred in almost all forms of fevers, the decrease of mortality being in enteric fever.

Eruptive fevers gave four admissions, three being for scarlet fever, introduced into Cape Town by a draft from England. The disease broke out on board ship, and besides the cases above-mentioned seven were transferred to hospital on arrival.

Enteric fever caused 31 admissions and 3 deaths; and in 1882 in a strength of 3,944 there were 240 admissions and 47 deaths, the rate of prevalence of the disease in the year under report being 10·9, as against 60·9 per 1,000 in the preceding year, and the rate of mortality 1·05 as against 11·92 per 1,000.

The Principal Medical Officer remarks that "the troops were undoubtedly " under much better sanitary control in the past than in the preceding year, " and were, with the exception of the Zululand force, fairly housed. Many " of the troops have now been some years in the Command, and this, doubtless, " exercises much influence both in their physical state and also in their habits; " but still it must be borne in mind that a constant change of men is taking " place to some extent under the short service system, and that drafts, chiefly " composed of young men between 19 and 22 years of age, to the number of " about 500 yearly, arrive to take the place of older and more acclimatised " soldiers. Barrack accommodation, rations, and water supply were good and " well looked after, so that it is difficult to attribute the causation to anything " connected with the above. Some few men admitted having drunk water " at outside places, but as it is difficult to trace the source from vague accounts, " it can only be assumed that in many if not in all instances the origin of the " disease lay outside regimental lines, and therefore beyond control. The " cases which occurred took place in the earlier and later part of the year, that " is, during the hot weather and rainy season in Natal. Owing to the detachments in Zululand the tents in Natal have afforded ample accommodation since September last, while under canvas only 6 men were in each " double tent; I consider that this arrangement has tended in some measure " to ward off the disease. Of the 31 cases admitted, 4 occurred at Etchowe " and on the march, 2 at Durban, 5 at Pietermaritzburg, 16 at Pinetown, and " 4 at Cape Town. Three deaths in all occurred from enteric fever, giving a " per-centage of 9·68 to cases treated as compared with 19·58 in the previous " year. The type of the cases generally was milder than in the preceding " year."

The admissions for other continued fevers numbered 99, or 34·7 per 1,000, as compared with 93·3 per 1,000 in the previous year. There was no death. The majority of these cases occurred in Pietermaritzburg, and some of the cases were complicated. Many were due to climatic causes in new arrivals in the country. Paroxysmal fevers were represented by 14 cases only of ague; the subjects were generally men who had previously served in Mauritius or India.

Among 404 admissions for diseases of the constitutional group, or 141·7 per 1,000, in excess of the rate in 1882 by 43·6, were 112 cases under the head of rheumatism, of which 12 were of the acute form; the ratio per 1,000 for all forms of rheumatic affections was 35·8, being an increase of 7·4 per 1,000 on the rate in the previous year. These cases occurred chiefly at Pietermaritzburg, influenced, no doubt, by the various sudden changes of temperature which occur there.

There was a considerable increase in the admission rate for primary syphilis, 84·5 per 1,000 as compared with 49·4 in the previous year, which is also above the average. The rate for secondary syphilis was 15·8 per 1,000, fractionally lower than in the preceding year. Including gonorrhœa and its sequelæ the admission rate for all forms of venereal disease reached 178·2 per 1,000, being an increase of 63·4 on the corresponding rate in the year 1882. At Cape Colony a contagious disease Act was passed, but its benefit was entirely nil, as no arrangements were made for separating diseased females, no inspection carried out, or any establishment authorised for working the Act.

Ten cases of tubercular disease occurred, due to predisposition and the exciting cause, probably, of very changeable climate; the admission rate was in excess of that of the previous year. Nine cases were invalided, of which two were fatal after leaving the Command.

Cape of Good Hope and St. Helena.

LOCAL DISEASES.—The rate of admission for diseases of the nervous system, 12·3 per 1,000, while slightly in excess of that in 1882, was only fractionally above the average. Among the cases were 3 of epilepsy, 19 neuralgia, and 4 of mental disease. Two cases of mental affection, one of mania and one of melancholia, were transferred from H.M.S. "Jumna" at Cape Town, and were invalided. Diseases of the circulatory system were at the rate of 18·2 per 1,000, one third higher than in the preceding year but about the average of former years. Out of 52 admissions 42 were caused by palpitation and 7 by valve disease of heart. Respiratory affections show a rate of admission of 29·5 per 1,000, being a slight increase on the former year, but still below the average. Seventy-two of the admissions were due to bronchial affections, 6 to pleurisy, and 6 to pneumonia, one case of the latter was fatal. 244 cases of digestive disorders were admitted, equal to an admission rate of 85·6 per 1,000, which is less than the corresponding rate of the former year by 32·1, and is less than half that of the average of the preceding four years. The improvement was chiefly in dysentery and diarrhœa, cases of which were comparatively much fewer. Four deaths occurred, one from hepatitis, abscess of the liver, dysentery, and peritonitis respectively. Among urinary affections gonorrhœa and its sequelæ gave an admission rate of 77·9 per 1,000, which is considerably above the average, and also greater than in the preceding year; the increase is said to have taken place chiefly at Cape Town. Bright's disease caused 3 admissions, 2 of which terminated fatally. The rates of admission of the remaining orders of local diseases show no great variation, and the cases do not call for special mention.

Debility caused 78 admissions, the rate, 27·4 per 1,000, being below the average; most of the cases were the result of fever. *Poisons* caused 13 admissions, 4 being for delirium tremens and 9 for alcoholic poisoning. No death occurred.

Injuries.—Six admissions are recorded under the head of general injury. They were all due to lightning stroke, 5 cases occurred at Etchowe and 1 at Pietermaritzburg; all recovered.

Local injuries numbered 232, the ratio per 1,000 being 81·4, somewhat above the average. Among the cases were 14 of fracture, of which 2 were severe; viz., one compound fracture and one comminuted fracture of both bones of the leg; two cases of accidental gunshot wound, one from a revolver bullet the other from shot, both recovered; the other admissions were of an ordinary character. One death out of hospital was caused by gunshot wound, *suicidal.* An artillery man shot himself with a revolver while in a state of temporary insanity.

Invaliding.—157 non-commissioned officers and men were invalided home, including 4 from St. Helena, and 60 men were finally discharged, being in the annual rates of 55·09 and 21·05 per 1,000 respectively, the former being an increase of 21·37 on the corresponding rate for the previous year, and the latter a decrease of 10·39. But in comparison with decennial average rates there is a slight decrease in the rate of invaliding home, and a fractional increase in that of final discharge. The chief causes of invaliding to England were rheumatism, palpitation, general debility (the latter including many cases consequent on previous attacks of enteric fever), and phthisis pulmonalis, two cases of which were fatal after leaving the Command. The principal disabilities necessitating final discharge were rheumatism, secondary syphilis, phthisis pulmonalis, diseases of the respiratory, circulatory, and digestive systems, and debility.

Officers.—In an average annual strength of 148 there were 55 attacks of illness and 3 deaths, being in the annual ratios of 371·6 and 20·27 per 1,000 respectively; the former being less than the similar rate in the preceding year by 128·4 and the latter by 2·71 per 1,000. No cases of enteric fever occurred. The deaths were caused as follows:—One from encephalitis, one from bronchitis, and one from snake bite. The last case was fully reported in the Appendix to the departmental volume for 1882. A second case of snake bite occurred at Pinetown, said to have been inflicted by a "night adder." A medical officer happening to be present, prompt measures were at once adopted to prevent absorption, and the case did well.

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A case of resuscitation from drowning took place. An officer trying to cross on horseback a stream in flood was carried away, but was rescued, insensible, about a quarter of a mile off, when a private soldier who was acquainted with the means to be employed in the resuscitation of the apparently drowned at once put them into practice and restored animation. Eleven officers were invalided.

Women.—The average annual strength was 86, the attacks of illness numbered 63, and there was one death due to Bright's disease. The annual ratios were therefore 732·6 and 11·63 respectively. The rate of prevalence of sickness shows an increase, but that of mortality a slight decrease.

Children.—The average annual strength was 124, the number of attacks of illness 87, and of deaths 5, being in the annual ratios of 701·6 and 40·31 per 1,000 respectively; both higher than in the previous year. Among the cases were 2 scarlet fever, 14 chicken-pox, and 29 measles. There were also 11 cases of measles transferred from shipboard. The deaths were caused by tabes mesenterica, tubercular meningitis, bronchitis, pneumonia, and convulsions; one case respectively.

Sanitary Conditions.—The Principal Medical Officer reports that "the sanitary condition in Natal is much better than in 1882. With some very few exceptions the whole of the troops are housed in corrugated iron huts with earthern floors. At certain seasons of the year, however, these floors are infested with fleas, which prove a great torment. Many plans have been unsuccessfully tried to get rid of them.

"At Cape Colony the epidemic of small-pox ceased early in the year, and the troops were enabled to return to barracks. Several cases of scarlet fever having occurred amongst drafts from home for Natal, on board H.M.S. "Tyne," they were landed at Cape Town, and placed in special camp for 16 days. The disease did not spread, and the troops re-embarked in the same vessel. Other drafts for Natal, together with women and families, were similarly landed from H.M.S. "Orontes" early in November on account of an outbreak of measles, and remained six weeks under canvas, when they proceeded to their destination. The outbreak was rather severe.

"The drainage and sanitary condition of Cape Town and the vicinity of the barracks and castle particularly are very bad. The town main and other drains have been made the subject of litigation, but not with a satisfactory result as regards the military authorities. They are, however, kept cleaner than formerly.

"The following new buildings have been completed and improvements effected during the year.

"*Natal.*—At Pietermaritzburg the iron huts were completed and all the troops housed.

"New provost establishment built, containing eight cells, two large day rooms, and subsidiary buildings. New church school erected on site of former one. Water supply from town pipes improved and laid on into barracks.

"*Pinetown.*—New huts to accommodate all the troops completed. Large hut and latrine for hospital added.

"*Cape Colony.*—Cape Town. Several minor improvements in ventilation and drainage effected. A newly adapted infectious disease ward added to Station Hospital. Sanitary condition of barracks and camps fairly satisfactory."

IX.—ON THE HEALTH OF THE TROOPS SERVING IN THE ISLAND OF MAURITIUS.

Sickness and Mortality.

Mauritius.

The average annual strength of warrant officers, non-commissioned officers and men was 388, and the force was composed of the 8th Battery, 1st Brigade, Western Division, Royal Artillery from January to November, when it was relieved by the 9th Battery of the same brigade; a detachment 2nd Battalion Northamptonshire Regiment till November, being then relieved by a detachment 1st Battalion Welsh Regiment; and also a few men of the Garrison Staff and Departments throughout the year.

The admissions into hospital were 787 in number, the deaths 6, and constantly sick 37·79, being in the annual ratios of 2028·4, 15·46, and 97·39 per 1,000.

Compared with the corresponding ratios for the previous year there is a decrease of 448·0 per 1,000 in that of admission, but an increase of 2·28 and 2·21 per 1,000 in those of death and constantly sick respectively. In comparison with the average similar rates for the preceding 10 years a decrease of 39·1 per 1,000 has occurred in the admission rate, one of 2·53 in the rate of mortality, but an increase is noted in the constantly sick rate, amounting to 31·17 per 1,000. The average sick time to each soldier was 35·55 days, and the average duration of each case of sickness 17·53 days, both longer than the corresponding periods in the previous year.

The more important of the health statistics of the corps which served in the garrison during the year are shown in Abstract XLII.

The admission rate is high in all, but especially in the detachment Northamptonshire Regiment, in which it reached 2152·3 per 1,000; the constantly non-effective rate in this corps is also the highest, and was 110·99 per 1,000. The deaths all took place in the infantry, the rates of mortality in the above-mentioned regiment being 16·46 per 1,000; that in the detachment Welsh Regiment was very high, but the corps had been such a short time in the island, and the average annual strength consequently so small, that the rate does not convey a reliable impression.

The admissions and deaths in the various classes and orders of diseases are shown in Abstract XI.

General Diseases.—*Febrile Group.*—The total number of admissions was 367 and of deaths 5, being in the annual rates of 945·9 and 12·89 per 1,000, the former showing a decrease of 562·0 and the latter an increase of 5·04 per 1,000 on the corresponding rates in the preceding year. Eruptive fevers caused no admissions, but continued fevers show 19, of which 6 are returned as enteric fever, three of the cases being fatal, one at Curepipe and two at Port Louis. The Principal Medical Officer, Brigade Surgeon T. Symons, remarks "that " the two latter cases were young soldiers of the Welsh Regiment, who had " only arrived in the island about three weeks previously. It is not thought " that the disease originated within the barracks, and no definite conclusion " can be arrived at as to its precise source. The men frequent low drinking " shops kept by Chinese, who probably often use very foul water in mixing " their rum; moreover, the noxious vapours perceptible in some of the streets, " and those issuing from house drains, are undoubted sources of danger, espe-" cially to new arrivals. It seems probable that both in town and country the " predisposing causes of disease are on the increase, and the soil, which was " formerly able to exercise a disinfecting influence, is now in the vicinity of " settlements and villages becoming overcharged with impurities."

Paroxysmal fevers caused 347 admissions and 2 deaths, being in the annual ratios of 894·3 and 5·15 per 1,000, which compare very favourably with those of the previous year, 1450·3 and 7·85 per 1,000 respectively; the decrease in the rate of admission was 556·0 and in that of mortality 2·70 per 1,000.

Mauritius. Out of the total number of cases 23 were of remittent fever, two of them proved fatal; the remainder of the cases were due to ague, three fourths occurring in Port Louis, while those cases which occurred at Curepipe were in men who previously suffered at Port Louis. These fevers are said to be most prevalent during the first six months of the year, and the greater number of the admissions came from the line barracks, which are low-lying and damp, as in the heavy rains the water lodges and is not properly drained away.

In the *constitutional group* of diseases an admission rate of 301·6 per 1,000 is returned, which is an increase of 45·1 on the rate of 1882, and is also above the average. This increase is due to syphilis, a very few cases of rheumatism and tubercular disease having occurred; 64 admissions for the primary and 44 for the secondary form of the disease are returned, being at the rates of 165·0 and 113·4 per 1,000 respectively, as compared with 135·5 and 89·0 per 1,000 in 1882. The Senior Medical Officer states that "the infantry furnished by "far the larger portion of the cases, probably owing to their closer proximity "to the town, and many cases are known to have been imported into the "island by the detachment, Welsh Regiment. The type of the disease has "been severe. No contagious diseases Act is in existence, and the disease "is very prevalent among the lower Indian population." Including gonorrhœa, the total venereal rate reached 389·3 per 1,000, an increase of 77·8 on the previous year, and also considerably above the average.

LOCAL DISEASES.—With the exception of the digestive and urinary systems, the admissions under the different orders have been few, and do not call for special comment. One hundred and thirteen admissions are returned under the head of digestive disorders, causing an annual admission rate of 291·3 per 1,000, being an increase of 71·4; 46 of the admissions were for dyspepsia, mostly due to drink, and the bad liquor manufactured and sold in the colony. Diarrhœa, dysentery, and hepatic affections caused the greater part of the remaining admissions, and there was one death from abscess of the liver. All the admissions under the urinary system were due to gonorrhœa and its seqeulæ; the rate of prevalence, 110·9 per 1,000, being greater by 21·9 than in the previous year, but rather below the average of former years.

Five cases of *debility* and three of *poisons* are returned; the latter were all cases of delirium tremens. No death occurred.

Injuries.—Two cases of general injury occurred to men of the Royal Artillery owing to the premature discharge of guns while firing salutes. In each instance there was extensive injury to the right forearm and hand. Local injuries caused 56 admissions of an ordinary character. No case of *suicide* or *self-inflicted* injury is returned.

Surgical operations.—Two cases of amputation of fingers, consequent of the above-mentioned gun accidents, are recorded.

Invaliding.—Twelve men were invalided to England, being at the annual rate of 30·92 per 1,000, an increase of 7·36 on the previous year and a decrease of 10·31 on the decennial average. The causes of invaliding were enteric fever, paroxysmal fevers, rheumatism, phthisis pulmonalis, hepatic disease, debility, and multiple injury. No men are returned as finally discharged.

Officers.—In an average annual strength of 23 there were 27 cases of illness, 15 of which were due to febrile affections; the annual sick rate, 1173·9 per 1,000, is considerably higher than in 1882. One officer was invalided after enteric fever.

Women and Children.—The average annual strength of women was 11; 24 cases of sickness occurred, and one death took place from dysentery. The average annual strength of children was 23, cases of sickness 43, and deaths 2. Ague caused 16 of the cases. The causes of death were remittent fever and diarrhœa.

Sanitary Conditions.—The Senior Medical Officer remarks that "although "the general health of the troops during the past year compares favourably "with that of the previous year, chiefly on account of there having been less "malarial disease, yet all the injurious influences previously reported are still "existent, the chief evil being the location of the main body of the troops in "Port Louis, which is a notoriously unhealthy station. Measures are, however, being taken for the gradual removal of the troops to Curepipe.

Mauritius.

" During the past year there has not been any noteworthy sanitary improve-" ment in Port Louis, but at Curepipe new cook-houses have been constructed " for the sergeants' mess and hospital. A new barrack latrine on the earth " closet principle has been built in a convenient position. The drainage " arrangements are at present incomplete; two masonry surface drains for " conveying waste water from the ablution rooms have been extended to a " safer distance beyond the buildings."

X.—ON THE HEALTH OF THE TROOPS SERVING IN THE ISLAND OF CEYLON.

Sickness and Mortality.

I.—WHITE TROOPS.

Ceylon.

The force serving in Ceylon during the year was composed of the 5th and 6th Batteries, 1st Brigade, Eastern Division, Royal Artillery, 1st Battalion Royal Dublin Fusiliers, detachments Royal Engineers, Departmental Corps, and Garrison Staff.

The average annual strength of warrant officers, non-commissioned officers and men was 969, the number of admissions to hospital 1,201, of deaths 12, and of constantly sick 54·00. The admission rate is therefore 1239·4, the death rate 12·38, and the rate of constantly sick 55·73 per 1,000. Compared with the corresponding rates for the previous year is found an increase of the admission rate amounting to 42·0, and one in the death rate of 4·30; but in the rate of constantly sick there is a decrease of 7·25 per 1,000; and in comparison with decennial average rates there is an increase of 219·4 per 1,000 in rate of prevalence, one of 2·66 in that of always non-effective, but a decrease of 1·61 in the rate of mortality. The average sick time to each soldier was 20·34 days, and the average duration of each case of sickness 16·41 days, both shorter than the corresponding periods in the previous year, the former by 2·65 and the latter by 2·79 days.

The more important of the health statistics of the different corps are shown in Abstract XLII.

A draft of 209 men arrived for the infantry regiment in February, but by the end of the year the number was nearly counterbalanced by losses of time-expired men, invalids, &c.

The admission rate for the artillery was very high, 1470·6 per 1,000. This to a great extent was due to an unusual number of cases of ague at Trincomalee, and at Colombo among those men lately arrived from the former station. The rate of mortality was highest in the infantry regiment, 13·23 per 1,000, being increased by the deaths of 3 invalids after they had left the Command.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract XII.

GENERAL DISEASES.—The total number of admissions for *febrile* diseases was 161, and there was 1 death; the admission rate, 166·2 per 1,000, is double that of the preceding year, and considerably above the average. No admission occurred for eruptive fever, but enteric fever caused 4 admissions and one death. All the cases occurred at Colombo. The Senior Medical Officer, Surgeon-Major J. B. Greenhill, states that the origin of the disease was not traced. One case was that of a man in attendance on another suffering from this disease. Other continued fevers caused 90 admissions, or at the rate of 92·9 per 1,000, the attacks were mostly mild in type; the rate of prevalence is somewhat higher than in 1882. In paroxysmal fevers the rate, 71·2 per 1,000, is greatly in excess of that of the previous year, and is due to the prevalence of ague at Trincomalee; the cases were mild.

In the *constitutional group* of diseases there is a decrease of admission rate from 201·0 per 1,000 in 1882 to 130·0 in the year under report, this is due to the diminished prevalence of syphilis. The rate of admission for rheumatism, 33 per 1,000, is a little above the average; only two of the cases were, however, of the acute form. The number of admissions for primary syphilis was 70, and for secondary 15, being in the annual ratios of 72·2 and 15·5 per 1,000 as against 123·2 and 40·4 per 1,000 in the previous year. The Senior Medical Officer remarks "that he is unable to explain the cause of this decrease. No "special efforts appear to have been made in carrying out the Contagious

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Diseases Act." Including gonorrhœa, the venereal rate was 205·3 per 1,000; less than that of 1882 by 52·2 per 1,000. Seven admissions occurred for phthisis pulmonalis, six of these cases were invalided, of which three died.

LOCAL DISEASES.—A decrease in the rate of prevalence of nervous diseases, 21·7 per 1,000, is observed, but the rate is still above the average. Among the cases treated were three of mental disease, one of sunstroke, and one of locomotor ataxy, which had a fatal issue. Diseases of the circulatory system show an admission rate of 34·1 per 1,000, being an increase of 13·9 on the previous year and more than double the average. All but three of the admissions were due to palpitation, for which five cases were invalided. In respiratory affections also a considerable increase of prevalence is noticed; the rate, 46·4 per 1,000, is greater than that of the previous year by 30·2, and than the average of four years by 21·1. The cases, however, were, as a rule, not serious, and most of them due to bronchial affections; one fatal case is recorded, the cause of death being pneumothorax. Diseases of the digestive system gave an admission rate of 260·1 per 1,000, a decrease of 23·7 on the rate of the previous year, which was about the average; dyspepsia, dysentery, diarrhœa, and hepatic affections were the chief causes of admission. Two deaths occurred, one from dysentery and the other from hepatitis. Urinary affections, 128 in number, or 132·0 per 1,000, were considerably more numerous than in the preceding year, this was due to the prevalence of gonorrhœa, the rate of which alone was 104·2 per 1,000. In the remaining orders of disease nothing calls for special mention, except that a fatal case of post-pharyngeal abscess occurred. It is reported that at the post-mortem examination a bone about an inch square was found in the abscess cavity; the patient having denied all consciousness of the presence of a foreign body in the throat.

Poisons caused 14 admissions, 12 from alcohol and 2 delirium tremens, but no death occurred.

Injuries.—Two deaths occurred from drowning, one, accidental, at Galle; the other at Colombo, a patient suffering from remittent fever escaped from hospital while delirious, and his body was found next day in a lake at the back of the hospital.

The admission rate for local injuries was 174·4 per 1,000, and there was one death from fracture of the skull, the result of a fall from the upper verandah of the barracks at Colombo. Another case of fracture of the skull recovered. There was an admission for concussion of brain resulting from a fall from a verandah, the case was very severe, but finally recovered. No case of *self-inflicted injury* is recorded.

Invaliding.—Fifty-five men were invalided home, and 12 were finally discharged, being in the annual rates of 56·76 and 12·38 per 1,000 respectively, the former being fractionally higher than the corresponding rate for the previous year and than that of the average of 10 years by 18·18, while the latter is lower than in 1882 by 5·80 and than the decennial average by 2·31 per 1,000. The principal causes of invaliding to England were phthisis pulmonalis, mental diseases, diseases of the circulatory and respiratory systems, dyspepsia, hepatitis, and general debility. The chief disabilities causing final discharge were phthisis pulmonalis, deafness, and debility.

Officers.—In an average annual strength of 49 officers there were 23 admissions, one death, and three invalided, being in the annual ratios of 469·4, 20·40, and 61·22 per 1,000 respectively, all being somewhat higher than in the previous year. Febrile affections were the chief causes of sickness. The death was due to hepatic disease, and the invaliding to locomotor ataxy, aortic disease, and debility.

Women.—The average annual strength was 42, the cases of sickness 26, and one death, the annual ratios being 619·0 and 23·81 per 1,000, both showing an increase. The cause of death was phthisis pulmonalis.

Children.—The rate of prevalence of sickness was 548·4, and that death of 32·26 per 1,000, the average annual strength being 62, the cases of sickness 34, and deaths 2. Both sick and mortality rates show an increase. Febrile disorders caused most sickness. The deaths were due to tabes mesenterica and convulsions.

Sanitary Conditions.—The Senior Medical Officer reports that the canal near the barracks at Colombo, the condition of which has been before alluded to, Ceylon.

remains in the same unsatisfactory state, but no ill effects could be traced to it. The works of the municipal authorities for supplying the town of Colombo with water are expected to be completed in 1885.

With the exception of some latrines no new buildings have been constructed during the year, and the few alterations which were done at various stations were of very minor importance, nor were changes of any description made affecting the health of the troops.

II. Black Troops.

The native troops consist of a company of Gun Lascars, and are distributed between the stations of Colombo, Galle, and Trincomalee. The average annual strength was 84, and the admissions to hospital 57, being at the annual rate of 678·6 per 1,000. There were no deaths. Diseases of the febrile group caused most of the admissions, but they were mostly mild cases. The general health of these troops was good.

XI.—ON THE HEALTH OF THE TROOPS SERVING IN CHINA AND THE STRAITS SETTLEMENTS.

Sickness and Mortality.

I.—WHITE TROOPS.

China and Straits Settlements.

The force serving in the Command comprised the 8th and 9th Batteries, 1st Brigade, Southern Division, Royal Artillery; detachment Royal Engineers; 2nd Battalion East Kent Regiment (Hong Kong); 1st Battalion Royal Inniskilling Fusiliers (Straits Settlements); detachments Departmental Corps and Garrison Staff. No changes took place during the year, except that the battery of artillery quartered at Hong Kong proceeded to Singapore on relief by the battery from that station.

The average annual strength of warrant officers, non-commissioned officers, and men was 1,713; there were 2,339 admissions into hospital and 12 deaths, including that of an invalid after having left the Command; and the average number constantly sick was 107·01. The admission rate was 1365·4 per 1,000, the death rate 7·01, and the constantly sick rate 62·47 per 1,000. Compared with the corresponding rates for the previous year an increase has occurred in all, 412·3, 1·00, and 12·10 per 1,000 respectively; and in comparison with the average similar rates for the preceding 10 years an increase is observed in the rate of prevalence of sickness amounting to 295·9 per 1,000, and in the rate of constantly sick one of 13·88 per 1,000, but the rate of mortality is decreased by 4·60 per 1,000. The average sick time to each soldier was 22·80 days, and the average duration of each case of sickness 16·70 days, the former being an increase of 4·41 and the latter a decrease of 2·59 days on the corresponding period in the previous year.

The proportions in which the two divisions of the Command contributed to these results are shown in the following table:—

Stations.	Average Annual Strength.	Admissions into Hospital.	Died. In the Command.	Died. Of Invalids.	Died. Total.	Invalided home.	Average daily Sick.	Ratio per 1,000. Admissions.	Ratio per 1,000. Deaths.	Ratio per 1,000. Invalided.	Ratio per 1,000. Average daily Sick.	Average Sick time to each Soldier.	Average Duration of each case of Sickness.
												Days.	Days.
Hong Kong -	869	894	7	1	8	34	61·82	1,028·8	9·21	39·12	71·14	25·96	25·24
Straits Settlements.	844	1,445	4	—	4	21	45·19	1,712·1	4·74	24·88	53·54	19·54	11·41

In the Hong Kong division of the Command there is an increase of 89·2 per 1,000 in the admission rate as compared with the previous year, and one of 3·30 in that of death; the increase in the rate of constantly sick amounts to 22·50 per 1,000. In the Straits Settlements there was an increase of 745·2 per 1,000 in admission rate, but the death rate shows a decrease of 1·37 per 1,000.

The more important of the health statistics of the different corps which served in the Command will be found in Abstract No. XLII.

In the Royal Artillery a considerable decrease is observed in the rates of admission and mortality, but a slight increase in the rate of constantly sick. In the East Kent Regiment (at Hong Kong) some increase occurred in the admission and death rates, 131·2 per 1,000, on 935·7 in the former case and 2·61 on 5·59 per 1,000 in the latter, and the constantly non-effective rate

China and Straits Settlements.

through sickness increased from 51·41 to 73·40 per 1,000. Paroxysmal fevers and debility were the chief diseases in which increase occurred. In the Royal Inniskilling Fusiliers (at Straits Settlements) the admission rate amounted to 1877·2 per 1,000, an increase of 894·3 on that for the preceding year; the rate of constantly sick, however, only gave a slight increase, while that of mortality shows a fractional decrease. Speaking of the increase of sickness in the Straits Settlements, the Principal Medical Officer, Deputy Surgeon-General R. Hungerford, remarks:—"In the early part of the year there was a sudden "increase, which continued more or less all through in the number of "admissions for febricula and malarious fevers at Tanglin. It commenced "shortly after the arrival of a draft from England for the Royal Inniskilling "Fusiliers, and the men of the draft, not being acclimatised, suffered in "proportion most severely. Surgeon-Major Robinson ascribes the fever to "the fact that some of the ground near the rifle range was very marshy."

The admissions and deaths in the various classes and orders of diseases are shown in Abstract XIII.

General Diseases.—The admissions in the *febrile group* numbered 1,078, with 5 deaths, being in the annual ratios of 629·3 and 2·92 per 1,000 higher than those of the previous year by 375·0 and 1·72 per 1,000, both also being above the average of preceding years. Eruptive fevers caused 4 admissions, of which 2 were for small-pox at Hong Kong. No cases of enteric fever are recorded, but of other continued fevers 514 occurred, and of paroxysmal fevers 559 and 5 deaths; the admission rate for the former being 300 and for the latter 326·3 per 1,000, showing increase on the rates for 1882 of 110·0 and 265·0 per 1,000 respectively. Out of the total number of admissions 343 for continued fevers and 361 for paroxysmal fevers (27 being of the remittent type) occurred at Tanglin, and chiefly among the men of the draft Inniskilling Fusiliers, which arrived in February. Five deaths occurred from fevers, one from ague and three from remittent fever at Hong Kong, and one from remittent fever at Tanglin.

Diseases of the *constitutional group* were at a rate of 82·9 per 1,000, a decrease of 9·1 on the similar rate in the previous year. Rheumatic affections caused 33 admissions, of which 11 were of the acute form. Syphilis caused 71 admissions for primary, and 17 for secondary disease, being in the annual rates of 41·5 and 9·9 per 1,000 respectively; both being less than the corresponding rates in 1882, the former by 6·0 and the latter by 6·4 per 1,000.

Including gonorrhœa and its sequelæ the venereal rate of admission was 157·0 per 1,000, being an increase of 9·6 on that for the foregoing year. Venereal disease was more prevalent in Hong Kong than in the rest of the Command. Sixteen admissions are shown for tubercular disease, 14 of the cases being of phthisis pulmonalis, of which two were fatal, one at Hong Kong and the other, an invalid, at sea.

Local Diseases.—The admission rates of the following orders of this class show an increase: diseases of the eye, of the circulatory, respiratory, and urinary systems, and of cellular tissue, the remainder giving reduced rates, except in the case of the cutaneous system, which remains the same as before. In no instance, however, were the differences great, except in the urinary system, the increase, 28·1 per 1,000, being due to the prevalence of gonorrhœa. Among the diseases of the nervous system were six cases of sunstroke and two of mental disease. The admissions for diseases of the circulatory system numbered 43, of which 10 were due to valve disease of the heart (one case being fatal at Tanglin) and 26 to palpitation. Among respiratory affections, out of a total of 59 cases, there were 51 of bronchial affections, 3 of pleurisy, and 2 of pneumonia. Diseases of the digestive system caused 225 admissions and 2 deaths, being in the annual rates of 131·4 and 1·17 per 1,000, less prevalent, as has been shown, than in the previous year, in which, however, there were no fatal cases. The principal causes of admission were dyspepsia 65 cases, diarrhœa 59, and hepatic affections 42. The deaths were caused in one case by dysentery, and the other by jaundice, both at Hong Kong. No other orders of disease call for special remark.

The admissions for *debility* numbered 126, equal to a rate of 73·6 per 1,000, more than double that in the preceding year. The majority of the cases occurred at Hong Kong, and many were the result of malarial fevers.

Under the head of *poisons* 18 admissions are shown, 7 being cases of alcoholic poisoning, 8 of delirium tremens, and 3 of poisoned wounds; the rate, 10·5 per 1,000, is more than twice that in 1882.

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Injuries.—Two deaths are shown under general injuries, both were cases of men "found drowned," one in the harbour at Hong Kong the other in a pond at Fort Canning, Singapore.

162 cases of local injury are returned, they were chiefly of a minor character, and were less numerous than in the preceding year.

No cases of *self-inflicted* injury or *suicide* are recorded.

The only *surgical operation* reported is the removal of a sebaceous tumour from the face, which was performed with satisfactory results.

Invaliding.—The number of men invalided home during the year was 55, and of men finally discharged 35, being in the annual rates of 32·11 and 20·43 per 1,000, the former being less by 20·20 and the latter by a small fraction than the corresponding rate for the previous year; while in comparison with preceding decennial average the rate of invaliding is lower by 10·65, but the rate of final discharge higher by 3·76 per 1,000. The principal causes of invaliding were debility fevers, cardiac diseases, nervous affections, and phthisis pulmonalis. The chief disabilities causing final discharge were diseases of the circulatory system, debility, tubercular diseases, and hepatic affections.

Officers.—In an average annual strength of 85 officers there were 32 cases of sickness, and one death (that of an officer on his way home invalided), being in the annual ratios of 376·5 and 11·76 per 1,000. The sick rate is slightly less than in the previous year, and the rate of mortality fractionally greater. The prevailing diseases were fevers. Five officers were invalided, two for fevers and one for paralysis, conjunctivitis, and debility respectively.

Women.—The average annual strength was 69, the attacks of illness 73, and there was one death.

The sick rate, 1057·9 per 1,000, though very high, is less than in the previous year.

Among the cases of sickness were two of small-pox, one of puerperal fever, which proved fatal, and 30 of other forms of fever.

Children.—There were 74 attacks of illness and 6 deaths in an average annual strength of 115, being in the annual ratios of 643·5 and 52·17 per 1,000, the former showing a decrease and the latter an increase on the corresponding rate for the preceding year. Among the cases were one of small-pox, 11 of measles, 13 of other fevers, and 15 of diarrhœa. The deaths were caused by convulsions and diarrhœa in two cases each, and by febricula and pneumonia in one case respectively.

Sanitary Conditions.—The Principal Medical Officer reports that the general health of the troops in the Command can only be described as fair during the year under report. The chief causes of sickness were climatic fevers, and these especially in the Straits Settlements. At Hong Kong the number of men constantly non-effective through sickness was much increased. This to a certain extent was caused by the fact that no invalids were sent home during the autumn, and in consequence they remained for a long time in hospital, or in a number of cases returned to it after a short absence at the sanitarium, where they did not as a rule derive the benefit which was expected.

The general sanitary condition of barracks, as regards accommodation, ventilation, warming, and lighting, appears to have been satisfactory, as also the drainage, though at Hong Kong in the dry season bad smells are common owing to want of water to flush the sewers sufficiently often. A general sanitary scheme is understood to be under consideration, and will shortly be taken in hand. With regard to hospital accommodation, the Principal Medical Officer remarks that "but for the relief to the hospital by sending men to "the sanitarium actual overcrowding would probably have taken place. The "hospital ship "Meanee" does not afford sufficient accommodation during "the summer months, and has many disadvantages." He strongly recommends that a site for a hospital on shore should be selected as the available land is being rapidly built over. A hospital for women is much needed.

The following are the chief sanitary services which have been carried out during the year. At Hong Kong the centre block, Wellington Barracks, had become dangerously fractured and is being taken down. A meat store pro-

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vided for the Commissariat Department. The purchase of certain inland lot in the cantonment has been effected, and the old Chinese dwellings removed The sanitarium was completed, and was occupied for the first time in July; but the erection of officers' quarters, married quarters, and recreation room are still required.

In the Straits Settlements good progress has been made in improving the drainage of some marshy ground near the rifle range at Tanglin, and a sum of money has been voted for remaking some drains which had become partially choked.

II. ASIATIC TROOPS.

The Asiatic troops in the Command consist of Gun Lascars, which corps has been stationed at M'Gregor Barracks, Hong Kong. The average annual strength was 176, the admissions into hospital 211, the deaths 3, and constantly sick 9·60. The admission rate was therefore 1198·8, the death rate 17·04, and that of constantly sick 54·92 per 1,000. The admission rate, and also that of mortality, shows a considerable decrease as compared with the preceding year.

One man was invalided during the year. Fevers were the prevailing diseases, 64 admissions being from this cause alone. The deaths were due to anæmia, pleurisy, and diarrhœa respectively.

XII.—ON THE HEALTH OF THE TROOPS SERVING IN INDIA.

Sickness and Mortality.

Bengal.

The average annual strength of the warrant officers, non-commissioned officers, and men in India was 56,190; the admissions into hospital were 73,847; and the deaths 676, of which 606 took place in India, and 70 (being those of invalids) on the passage to or after arrival in England. The average number of constantly sick was 3598·29. The rates from these numbers are, for admissions 1314·3, for deaths 12·03, and for constantly sick 64·01 per 1,000 of the strength.

The sickness for each of the three commands is shown in the following table:—

—	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Invalids discharged the Service.	Constantly sick.
			In India.	Of Invalids.	Total.			
Bengal - -	34,395	49,651	382	42	424	1,049	446	2332·26
Madras - -	10,612	10,517	108	12	120	347	122	633·79
Bombay - -	11,183	13,679	116	16	132	421	117	632·24
Total - -	56,190	73,847	606	70	676	1,817	685	3598·29
Ten years, 1873—82 -	566,914	830,550	9,553	612	10,167	22,797	9,005	34569·00

continued.

—	Ratio per 1,000 of Mean Strength.					Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
	Admitted.	Died.	Invalided Home.	Invalids discharged.	Constantly sick.		
						Days.	Days.
Bengal - -	1443·6	12·33	30·50	12·96	67·81	24·75	17·14
Madras - -	991·0	11·31	32·70	11·49	59·72	21·80	22·00
Bombay - -	1223·2	11·80	37·64	10·46	56·54	20·63	16·87
Total - -	1314·3	12·03	32·33	12·19	64·04	23·37	17·78
Ten years, 1873—82 - -	1465·1	17·93	40·21	15·88	60·98	22·26	15·19

Bengal.

I.—BENGAL.

The average annual strength of warrant officers, non-commissioned officers, and men serving in Bengal in the year 1883 was 34,395, the admissions into hospital numbered 49,651, and the deaths 424, inclusive of those of 42 invalids who died either during the homeward voyage or after arrival in England. The average number constantly sick was 2,332·26. The annual ratios per 1,000, are, therefore, for admissions 1,443·6, for deaths 12·33, and for the average constantly sick 67·81.

Compared with the corresponding rates for the previous year, a decrease of 111·9 per 1,000 has occurred in that of admission, one of 1·60 in that of mortality, and one of 2·02 in that of constantly sick. In comparison with the similar average rates for the preceding 10 years, the admission and death rates show a reduction of 74·3 and 6·75 per 1,000 respectively, but in the constantly sick rate, an increase of 5·60 per 1,000 is observed. The average sick time to each soldier was 24·75 days, and the average duration of each case of sickness 17·14 days; the former being fractionally shorter, and the latter ·75 days longer than the corresponding period in the previous year, and each of them longer than the corresponding average period in the preceding 10 years.

The total loss for the year by deaths and final discharge of men from the service was 870, or at the rate of 25·29 per 1,000, which is lower than in the previous year by 2·43 per 1,000. The sickness and mortality at the different stations in the command are shown in Abstract XV., taken from the report received from the Principal Medical Officer, Surgeon-General Sir A. D. Home, V.C., K.C.B.

On examining this table it is observed, taking the larger stations, those with an average strength over 150 men, that the highest admission rate, 3073·5 per 1,000 occurred at Amritsar; this rate, though slightly less than that of the previous year, is considerably above the average of the preceding 10 years, and was due principally to prevalence of malarious fevers, 470 admissions out of a total of 836 being caused by ague. Next to the above comes Shahjehanpore, with an admission rate of 2995·2 per 1,000, very nearly three times as great as in 1882, and considerably above the decennial average rate; the average strength, however, was only 210, so that increased prevalence of disease would very quickly run up the admission rate. In this case also malarious fevers caused the majority of the admissions, 64·5 per cent. The Medical Officer points out, however, that this sickness should not be taken as indicating that the climate of Shahjehanpore is extremely malarious, as the high rate of sickness is probably due to the fact that the left half battalion of the regiment, which arrived in March, presented marked signs of malarial cachexia, contracted at their former station. Mean Meer, as usual, has a high admission rate, 2657·1 per 1,000, which, however, is less than the average rate, as well as that in the former year; 53·6 per cent. of the total sickness was due to fevers. In Peshawar, too, where the admission rate, 2593·6 per 1,000, was slightly above the average, the cause of sickness was principally fever of a malarious character, 51·7 per cent. of illness resulting from fevers. Among stations with low admission rates may be noticed Darjeeling 644·1 per 1,000, Dum-Dum 968·5, and Muttra 915 per 1,000, all being considerably under the average rates.

The highest rates of mortality are noticed at Benares, 39·06, Fortress Gwalior 35·46, and Moradabad 26·88 per 1,000. The high mortality rate at Benares does not appear to have been due to any particular sickness, the rate of prevalence of illness is, in fact, only 1283·9 per 1,000, but it is stated that a very large proportion of the deaths were due to accidental and other exceptional causes; in Fortress Gwalior the high rate was due to the occurrence of several deaths both from enteric fever and from cholera; in Moradabad the increase was due to some deaths from enteric fever, but it appears relatively greater than it otherwise would on account of the limited average strength. Bareilly and Muttra show low death rates, 3·75 and 2·93 per 1,000 respectively. At Chunar, where there was a very small average strength, 72, admission and death rates of 1638·9 and 97·22 per 1,000 are returned; here the very high rate of mortality was also due to the occurrence of cholera.

Bengal.

The more important of the health statistics of the different corps which served in the command during the year will be found in Abstract XLIII., taken from the report of the Principal Medical Officer With regard to the different arms of the service, the rates of admission and mortality during the year were, in the case of the cavalry, 1319·9 and 5·51 per 1,000 respectively; in that of the artillery 1441·8 and 12·17; and in that of the infantry 1484·0 and 10·88 per 1,000. All these ratios compare favourably with those corresponding in the previous year; thus, in admission rates, the decrease for cavalry was 189·6, for artillery 235·1, and for infantry 73·6 per 1,000, and in rates of mortality the reduction for cavalry, artillery, and infantry equalled 5·10, ·97, and 1·72 per 1,000 respectively. Among the cavalry the highest admission rate, 1945·9 per 1,000, occurred in the 1st Dragoon Guards, stationed nearly all the year in Meerut, and the highest rate of mortality in the 10th Hussars quartered at Lucknow; in the artillery, the garrison battery, quartered for 10½ months in Fort Lahore, and for the remainder of the time in Fortress Gwalior, shows the highest rates of admission and mortality, 2931·8 and 45·45 per 1,000 respectively; in the infantry, the half battalion Connaught Rangers, quartered at Shahjehanpore, had the highest admission rate, 3009·7 per 1,000, followed by the 1st South Lancashire Regiment, quartered at Peshawar, with 2663·7 per 1,000; the highest rate of mortality was in the half battalion Lincolnshire Regiment at Benares, 37·19 per 1,000. The 2nd Battalion Devonshire Regiment, nearly all the year at Jullundur, had the lowest rate of sickness of any infantry regiment, it amounted only to 888·0 per 1,000; the lowest mortality rate was in the 1st Battalion West Riding Regiment, head-quarters at Nowshera, 2·88 per 1,000. The 1st Leinster Regiment, at Umballa, had both low admission and death rates.

The admissions, deaths, and invaliding in the different classes, and orders of diseases are shown in Abstract XIV., and the prevalence and mortality of the various orders of diseases in each of the military divisions in the command in Abstract XVI.

General Diseases.—The rate of admission for this class of diseases in the whole command was 661·8 per 1,000, and the rate of mortality 5·79 per 1,000; compared with the previous year, the admission rate is lower by 155·7, and the death rate fractionally less; but in comparison with the average of the preceding four years the decrease in rate of prevalence reaches 302·6, and in that of mortality, 5·07 per 1,000.

The number of admissions in the *febrile group* of diseases was 17,069, the deaths, including that of an invalid, 145, and the number constantly sick 549·86, being in the annual ratios of 496·3, 4·22, and 15·99 per 1,000 respectively. When compared with the corresponding rates in 1882, a decrease is observed in all, being 164·9 per 1,000 in admission rate, ·93 in death rate, and 3·57 per 1,000 in the rate constantly sick; but when compared with the average rates of the preceding four years, the decrease in the rates of admission reaches 307·3 per 1,000, in that of mortality 4·94, and in that of constant inefficiency through sickness 4·40 per 1,000.

The Peshawar and Lahore circles gave the highest rates of admission for febrile diseases, 915·7 and 837·3 per 1,000 respectively, the lowest being in Sirhind 229·9, and in the Presidency 208·5 per 1,000. The highest mortality rate, 12·50 per 1,000, is found in the Gwalior district, followed by Allahabad with 11·57 per 1,000. The lowest death rates were in the Meerut and Peshawar circles, 2·40 and 1·78 per 1,000 respectively. Compared with the return for the previous year, a decrease of the admission rate for febrile diseases, varying from 772·9 per 1,000 in the Gwalior circle to 54·4 in that of Sirhind, has occurred in all the administrative circles except Rohilcund, in which an increase of 307·7 per 1,000 is observed. With regard to the rates of mortality, that for Oudh is lower by 13·70 per 1,000, and that for Peshawar by 2·39, and fractionally in those for Allahabad, Rohilcund, and Rawal Pindi; on the other hand, there is an increase for Gwalior of 6·42, Meerut 1·81, Saugor 1·64, and a fractional increase in the remaining circles.

Among the *eruptive fevers* 86 admissions and 7 deaths from small-pox occurred, giving ratios of 2·5 and ·20 per 1,000, as compared with 1·0 and ·11 per 1,000 respectively in the former year, the epidemic of small-pox which began in 1882 having continued and augmented in the year under report. The disease was scattered over many stations, the chief of which was Lucknow, *Bengal.* with 33 cases and 4 deaths; Agra, 19 cases and 1 death; Cawnpore, 10 cases; Morar, 8; Meerut, 4: Fyzabad, Sitapore, and Jubbulpore 2 cases respectively; and other stations with single cases. In the stations in which most cases occurred the disease was in a very severe epidemic form among the native population; for instance, in Cawnpore as many as 600 deaths from it were recorded. Among the remaining 41 admissions for eruptive fevers are returned 1 for scarlet fever, 6 for measles, and 17 for dengue; 16 of the latter, with fatal result in one instance, occurred at Barrackpore, where the disease was epidemic in August and September; it was, however, generally mild in type.

Continued Fevers.—Enteric fever caused 274 admissions and 84 deaths, being in the annual ratios of 8·0 and 2·44 per 1,000 respectively, those in the previous year being 7·4 and 2·83; compared with the average rates for the preceding four years there is a fractional increase in the rate of admission, but a decrease in that of mortality of ·70 per 1,000. The per-centage of mortality to cases treated, 30·6, is less than that in 1882 by 7·8. In Abstract No. XVII., a table, taken from the report of the Principal Medical Officer, is given, showing the stations at which the admissions and deaths from enteric fever took place in each of the four quarters of the year. It will be seen that the disease was more or less prevalent in all four quarters of the year; in the second and third quarter during the hot and rainy seasons, the greatest prevalence and mortality are observed, 97 cases and 32 deaths in the former, and 96 cases and 37 deaths in the latter; during the first and fourth quarters, or the cold season, the admissions and deaths dropped to 42 and 7; and 39 and 8 respectively. Every division in the command suffered, that of Oudh showing the greatest number of admissions, 64, but not the greatest number of deaths, as these only reached 11; the highest mortality was in the Gwalior division, where the deaths reached 15 out of a total of 27 admissions. The divisions least affected were those of Saugor and the Presidency, the admissions in each being 3; in the former all the cases, and in the latter two, were fatal. The stations where there was the greatest incidence of the disease were Lucknow with 44 cases and 8 deaths, Subathu 22 cases and 2 deaths, Mean Meer 18 cases and 2 deaths; Morar, 14, and 7 deaths; Dinapore, 13, and 7 deaths, and Ferozepore, 13 and 5 deaths. Exclusive of Saugor and other stations, where there were only three, two, or single attacks, the greatest mortality to cases treated was in Fortress Gwalior, where 8 deaths occurred out of 12 attacks.

At Lucknow it does not appear that there was any particular outbreak, but that the disease existed more or less throughout the year, but was most prevalent in the second and third quarters. It is reported by the medical officer in charge that out of the total number of cases, "35 attacks and 7 deaths occurred in the Derbyshire Regiment, which had arrived in India from Egypt in November 1882, and was composed principally of very young soldiers. The source of the disease could not be ascertained. The sanitary condition of the barracks and surroundings was excellent, and in the barracks occupied by the regiment there was no marked prevalence in any one building or locality."

Of the 22 cases recorded at Subathu it is found that six cases occurred in June and July and seven in September, the remainder being spread over the months from March to November. The medical officer in charge states that there were no sanitary defects to account for the occurrence of the cases, but he thinks that impure milk was the probable cause. Of the cases which occurred at Mean Meer no definite causation is described; 10 of the 12 cases in Fortress Gwalior occurred between the 7th August and 5th September, and were attributed to contamination of the drinking water; it was found that there was soakage into the well after rain, and the water became disagreeable both to taste and smell.

Simple continued fever and febricula caused 3,727 admissions with 4 deaths from the former disease; the admission rate, 108·3 per 1,000, only differs by 1·0 from that in the preceding year, but is considerably below the average rate, 147·3 per 1,000.

Continued fevers were most prevalent in the Allahabad circle, where the admission rate was 216·4 per 1,000. The Gwalior and Lahore circles also show high rates of prevalence; Sirhind and the Presidency show the lowest rates, both being 68·5 per 1,000.

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Compared with the return for the previous year an increase of admission rate is found in the Gwalior division, 146·3 per 1,000; in the Lahore circle, 119·8; and to a slight extent in the Oudh and Peshawar divisions; in all the other circles a decrease is observed, the most marked being 132·9 per 1,000 in the Saugor division.

Paroxysmal Fevers caused 12,756 admissions and 14 deaths, the ratios per 1,000 of strength being 370·9, and ·41. The admission rate as compared with that in 1882 is decreased by 164·9, and in comparison with that of the average of four years to a still greater extent, the reduction being 265·2 per 1,000. The rate of mortality is but fractional, but it is less than the average, as well as that in the preceding year. The rate of constant inefficiency for these fevers, 10·68 per 1,000, compares very favourably with 14·65 in 1882, and the average rate, 14·79 per 1,000. The greatest prevalence of these affections is found to have been in the Lahore division, the rate being 647·6 per 1,000, which, however, is below the average; 518·7 per 1,000 in Rohilcund comes next, followed by Gwalior with 477·4 per 1,000; the lowest rates, as was seen to be the case in continued fevers, were in the Sirhind and Presidency circles, 152·1 and 130·4 per 1,000 respectively.

Compared with the return for the previous year an increase of admission rate of 302·5 per 1,000 occurred in the Rohilcund division; but in all the other divisions a decrease is observed, amounting to 920·9 per 1,000 in the case of Gwalior, 553·4 in that of Lahore, 344·6 in that of Peshawar, and in all the rest to smaller numbers.

These satisfactory results are in great measure accounted for by the scanty rainfall experienced during the year in the season of the periodical rains. With regard to the great reduction in rate of prevalence at Fortress Gwalior, it was due in a measure, in addition to the above influence, to a number of the men predisposed to malarial fevers being sent to the hills. Out of the total number of admissions, 292 are returned as remittent fever, the remaining 12,464 as ague; 13 deaths occurred from remittent fever, and one is returned from ague.

Cholera caused 48 admissions and 32 deaths, being in the annual ratios of 1·4 and ·93 per 1,000, less than the corresponding rates in the preceding year by ·6 and ·31 per 1,000 respectively, and both considerably less than the average of previous four years.

In Abstract No. XVIII. is given a table, taken from the report of the Principal Medical Officer, showing the stations in the command at which the admissions and deaths from cholera took place in each of the four quarters of the year. It will be seen that nearly all the cases occurred in the second and third quarters of the year, the former having 18 cases, with 13 deaths, and the latter 27 cases and 19 deaths; in the first quarter there were only two cases, and in the fourth one case. The majority of the cases happened in the Allahabad division. The stations where the chief incidence of the disease took place were—Allahabad, 18 cases, 11 deaths; Dinapore, 12 cases, 7 deaths; Fortress Gwalior, 6 cases, 5 deaths; and Chunar, 5 cases, 4 deaths. The Principal Medical Officer calls attention to the fact that, with the exception of 5 cases at Gwalior, all occurred at stations east of the 80th degree of longitude.

Other febrile affections caused 137 admissions and 3 deaths, one being that of an invalid; among the cases were 89 of erysipelas; all the deaths were due to pyæmia.

Diseases of the Constitutional Group.—Rheumatism in its various forms caused 1,399 admissions, of which 229 and one death were due to rheumatic fever. The admission rate, 40·7 per 1,000, exceeds that for 1882 by 4·7, and the average rate by 3·3 per 1,000. The highest rates of prevalence of these affections are recorded in the Peshawar, Lahore, and Oudh circles. All these rates are much higher than in 1882. Rohilcund and Meerut also show an increase, but in the remainder a decrease is observed.

Syphilis.—Primary syphilis caused an admission rate of 86·5 per 1,000, almost identical with that of the preceding year, and only differing from that of the average of the previous four years by a decrease of 2·0 per 1,000. For the secondary form the admission rate, 23·4 per 1,000, is increased by 1·6 as compared with the previous year's rate, and is fractionally below the average.

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Including gonorrhœa and its sequelæ, the admission rate for all forms of venereal disease, 246·9 per 1,000, is an increase on that in the foregoing year of 10·7 per 1,000. The average number of men constantly non-effective on account of these affections was 622, or at the rate of 18·07 per 1,000, which is higher by 1·07 than the rate of inefficiency in 1882.

The rate of prevalence of primary syphilis shows a reduction of 26·8 per 1,000 for the Allahabad division, 43·7 for Oudh, 71·8 for Rohilcund, 35·1 for Saugor, and 20·6 for Rawal Pindi; an increase took place in the Presidency of 77·7 per 1,000, 36·0 in Sirhind, and 99·1 in Peshawar. The highest rate of prevalence was in the Presidency, 135·1 per 1,000. Prevalence of secondary syphilis was reduced in the Rohilcund, Saugor, and Allahabad circles, but increased in the remainder.

Tubercular diseases caused 233 admissions and 43 deaths, including 16 of invalids. The admission rate, 6·8 per 1,000, and the death rate, 1·25, both differ but fractionally from the corresponding rates in the previous year, and the same is the case with regard to the average of similar rates for the preceding four years. 192 of the admissions and 36 of the deaths were due to phthisis pulmonalis. The relatively small number of admissions for these affections in each division renders comparison of their proportional differences superfluous.

Scurvy and Purpura.—Under this head 95 cases and 6 deaths are returned. The Principal Medical Officer remarks that "during the year there was a very "large (proportional) increase in the number of admissions for both these "diseases. The admissions for scurvy were four times as numerous as in "1882, and the admission rate for both diseases, 2·8 per 1,000, is 2·1 higher; "the death rate, ·17, is ·14 higher, and the constantly sick rate, ·15 per 1,000, "higher by ·11 per 1,000. The increased prevalence of scurvy is apparent "only, being consequent on an increased recognition of the illness. In "the different circles the increase of prevalence is most marked in those of "Gwalior, Rohilcund, and Peshawar."

Other diseases of this group caused 104 admissions and 4 deaths. The admission and death rates, 5·3 and ·12 per 1,000, were increased by 1·1 and ·06 per 1,000 respectively; the increase in the former rate is due to the large number of admissions for anæmia. The deaths were caused by cancer in two instances, and in one each by anæmia and general dropsy.

LOCAL DISEASES.—*Diseases of the Nervous System* caused admission and death rates of 22·1 and 1·63 per 1,000 respectively; the former is higher than the corresponding rate in the previous year by 4·4, and also somewhat above the average; the latter is fractionally above that of 1882, but is below the average rate of four years by 1·0 per 1,000. There was a considerable increase in the number of cases of sunstroke, 127 admissions being returned against 74 in the former year; the number of deaths from this affection, 30, was the same. Neuralgia and epilepsy caused a large number of admissions. A fatal case of hydrophobia occurred at Cawnpore; it is reported that there was no history of a bite from an animal; the duration of the case was three days. Eighty-eight admissions are returned for various forms of mental disease, the ratio being 2·5 per 1,000, an increase on that in 1882. The remaining fatal cases were due to meningitis, encephalitis, paralysis, and apoplexy. The greatest prevalence of these diseases in the different circles is found in that of Gwalior, and the highest mortality in that of Lahore. In comparison with results in the previous year it is noticed that an increase of prevalence has taken place in the following circles: Peshawar (23·8 per 1,000), Presidency, Lahore, Saugor, Gwalior, and Rohilcund, but a decrease in the remainder.

Diseases of the Eye caused an admission rate of 16·0 per 1,000, fractionally above the average rate, and also that of the previous year. The greatest prevalence was in the Oudh division, 26·5 per 1,000, and the least in Gwalior, 6·5 per 1,000. The ratios are decreased in Gwalior, Rawal Pindi, Lahore, Presidency, Allahabad, and Saugor, and increased in the remainder; the differences, however, are not great.

Diseases of the Ear show a ratio of admission of 15·7 per 1,000, an increase of 3·1 on the preceding year; and *diseases of the nose* caused a ratio of 1·1 per 1,000, being, though a fractional increase, double that of 1882.

Diseases of the Circulatory System caused a ratio of admission of 15·7 per 1,000, less than in the preceding year by 1·1 per 1,000, and fractionally below the average; the death ratio shows also a slight decrease in comparison with both the above similar rates. With regard to the different administrative circles, an increase ofadmission rate as compared with 1882 is noticed in Peshawar, of 22·8 per 1,000, and in Lahore, Meerut, and Saugor of smaller numbers; in the remainder there is a decrease, but in none particularly marked, except in Gwalior, where it was 12·6 per 1,000. The greatest prevalence of these affections was in Peshawar, 38·4 per 1,000. The mortality rates in the various circles are all fractional; 344 out of the total admissions (538) were for palpitation; but this number is less considerably than in the preceding year. 97 admissions and 4 deaths were due to valve disease, and 21 and 1 death to hypertrophy of the heart; the remaining deaths were caused by pericarditis, 3; fatty degeneration of the heart, 6; aneurism of aorta, 2; and rupture of the aorta and syncope one each. *Bengal.*

An admission rate of 16·3 per 1,000 is shown for *diseases of the absorbent system*, being 3·0 below the average, and 2·5 below the similar rate in 1882. It is stated in the report of the Principal Medical Officer "that it may be " useful to note the evidence supporting the belief that the diseases in this " system are (chiefly) affections which might be more appropriately placed " in the constitutional group under the head of syphilis. Of 561 affections " of glands returned in all, only 38 are stated to be those of glands other than " inguinal (60 affections of the 561 are not taken into account in this statement as they are not differenced in the return), thus the affections of the " inguinal glands are in the rate of 924·0 per 1,000 of the whole of those " which are specifically designated; the inference, therefore, is strong that those " affections of the inguinal glands were consequent on the ordinary cause " of sympathetic affections of them, namely syphilis, or at least some form of " venereal disease. In 1882 with a higher rate of prevalence of venereal " disease at what are called 'protected' than at those termed 'unprotected' " stations, the rate of prevalence of diseases of the absorbent system corresponded in being higher for the first and lower for the second-named group. " For the present year the correspondence is maintained, whilst the relative " prevalence of venereal disease in the two groups is changed; in 1883 the rate " of prevalence of venereal disease in the protected is lower than in the unprotected stations, and with this there is a lower rate of prevalence of diseases " of the absorbent system in the protected; but with a higher rate of prevalence of venereal disease in the unprotected stations, there is also a higher " rate of prevalence of diseases of the absorbent system." Diseases of the ductless glands caused only 4 admissions against 19 in the previous year. Three of the cases were goitre, and the fourth one of Addison's disease.

Diseases of the Respiratory System caused an admission rate of 54·0 per 1,000, higher than that in the previous year by 1·6, but lower than the average by 1·8 per 1,000. The deaths numbered 29, including 9 of invalids, the ratio of mortality being ·84 per 1,000, slightly below the rate in 1882, and only about half that of the average of the preceding four years. As to the various circles, an increase of admission rate occured in that of Peshawar of 56·4 per 1,000, and in Oudh 28·2, in Allahabad a decrease of 19·7 per 1,000 is observed, in the Presidency one of 17·2, in Rawal Pindi 16·1, and Gwalior 10·5; in the remainder the differences are not great either way. Peshawar shows the highest rate of prevalence, and also of mortality, 103·4, and 1·40 per 1,000 respectively. Nearly five sixths of the admissions were due to bronchial affections; there were 139 cases of pneumonia, and 64 of pleurisy. The deaths were as follows: pneumonia 23, chronic pneumonic phthisis 2, and bronchitis, pleurisy, cirrhosis of lung, and abscess of lung, one case respectively.

Diseases of the Digestive System caused 7,698 admissions and 68 deaths, being in the respective annual ratios of 223·8 and 1·98 per 1,000. The ratio of admission is very slightly in excess of that of the previous year and is below the average rate by 16·5 per 1,000; the ratio of mortality is considerably below the average, and about a third lower than that in 1882. In the different circles it is observed that while in those of Allahabad and the Presidency there is a decrease, 60·1 and 130·8 per 1,000 respectively, there is an increase in all the remaining divisions, being 89·9 per 1,000 in Peshawar, 59·5 in Rohilcund, 48·0 in Saugor, 36·5 in Meerut, 27·1 in Rawal Pindi, 17·2 in Sirhind, 13·5 in Oudh, 6·0 in Gwalior, and 4·5 in Lahore. The

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rates of mortality were increased in the Saugor, Rohilcund, and Lahore circles, but decreased in all the others. The highest rate of prevalence was in the Oudh division, 322 per 1,000, and the highest rate of mortality in that of Saugor, 3·87 per 1,000. The principal cases were diarrhœa, 1,669 and 3 deaths, dyspepsia 1,617, hepatic affections 1,083 and 40 deaths (including 36 cases of liver abscess and 28 deaths), dysentery 788 and 15 deaths, tonsillitis 696, &c.; the remaining deaths were due to peritonitis 3 cases, splenitis 2, leucocythœmia 2, enteritis 2, and perforation of intestine 1 case.

In Abstract XIX. is a table, taken from the report of the Principal Medical Officer, showing the prevalence of dysentery, diarrhœa and hepatitis, in each of the divisions of the command, and the deaths caused thereby; and in Abstract XX. is a table showing the prevalence and mortality from the same diseases in each quarter of the year.

In the former table the admission rate for dysentery is 22·9 per 1,000, and the rate of mortality ·35 per 1,000, being decreased as compared with 1882 by 3·3 and ·39 per 1,000 respectively; the greatest prevalence was in the Oudh division, 38·4 per 1,000, but no deaths occurred therein; the highest mortality was in the Presidency circle. With regard to diarrhœa, the admission and mortality rates were 48·5 and ·06 per 1,000; the former being increased by 1·5, and the latter being unchanged; the greatest prevalence of diarrhœa was in the Rohilcund division. Hepatitis, including liver abscess, caused an admission rate of 26·1, and mortality rate of 1·04 per 1,000, which show a decrease of 3·2 and ·42 per 1,000 respectively; the highest rate of prevalence is found in the Oudh division, 44·1 per 1,000, but the highest death rate, 1·79 per 1,000, in that of Gwalior. From the second table it is seen that the greatest prevalence of dysentery was in the second and third quarters of the year, the least being in the first quarter. The ratio of mortality was highest, however, in the latter; diarrhœa showed the greatest prevalence in the third quarter, followed by the second, and the least in the fourth quarter; and hepatitis and liver abscess followed the same order of prevalence, but mortality was highest in the fourth quarter than in the third, and least in the second.

Diseases of the Urinary System.—The admission rate for gonorrhœa and its sequelæ amounted to 137·0 per 1,000, being an increase of 9·0 on the rate in 1882, as well as on the average rate. Gonorrhœa gave a lower admission rate than in the previous year in the Allahabad, Oudh, Rohilcund, Saugor, Gwalior, and Sirhind circles; but a higher one for each of the remaining five divisions. Other diseases of the urinary system caused an admission rate of 11·1, and a death rate of ·23 per 1,000; the former is greater than in 1882 by 2·9, and fractionally above the average; the rate of mortality shows but the slightest change. Among the cases were 21 of Bright's disease, out of which there were 5 deaths; 2 deaths are returned from pyelitis, and 1 from stricture of the urethra.

The admission rate for *diseases of the generative system* was 11·4 per 1,000, slightly below the average, though a fractional increase on the rate of 1882; the cases do not call for remark. *Diseases of the organs of locomotion* were increased by a small fraction, the rate of admission being 5·3 per 1,000; 2 deaths are returned, both occurred in invalids after arrival at home, and were due to caries of vertebræ.

For *diseases of the cellular tissue* an admission rate of 20·1 per 1,000 is recorded, which is somewhat above the average, and is above the rate in foregoing year. 79 per cent. of the admissions were for abscess; a death is returned from abscess of the diaphragm.

Diseases of the cutaneous system caused numerous admissions, amounting to a ratio of 86·7 per 1,000, being above the ratio of 1882 by 14·3, and above the average by 11·3 per 1,000; this increase is said to be "principally due to "the excessive prevalence of boils, a consequence of the dry heat prevailing in "the absence of the normal rains." The rate of prevalence is lower for the Presidency and Allahabad, but higher for all the other divisions.

Debility caused an admission rate of 21·7 per 1,000, against 30·7 in the former year, and against an average rate of 36·4 per 1,000. One death, that of an invalid, occurred after arrival at home.

Poisons.—219 admissions and 8 deaths are returned, being in the ratios of 6·4 and ·23 per 1,000; the admission rate is higher than in 1882 by 5·1, and than the average by 2·3 per 1,000. Of all the admissions in this class only four were due to other causes than alcohol and delirium tremens. These four were caused by poisoning by opium, by chloroform vapour, by lead, and by tobacco, one case respectively; the two first were fatal cases. Of the remaining admissions 143 were for poisoning by alcohol and 72 for delirium tremens; 5 cases of the former and 1 of the latter were fatal. The increased admission rate for poisons is therefore entirely due to the abuse of alcohol; the Principal Medical Officer points out, too, that a large proportion of the admissions for dyspepsia were due to this cause, and that many of the accidental injuries depended on the same.

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He refers to his report for the previous year in which "on the assumption " that the comparative prevalence of dyspepsia was in relation to the drinking " habits of the men, the conclusion was drawn, from the statistics of that year, " that there was more inebriety in it than in 1881. On the same assumption " it would seem that there was more intemperance in 1883 even than in 1882." The increase in the admission rate for dyspepsia, and perhaps that for accidental injuries, taken in conjunction with the increased rate of admission for the more direct effects of the abuse of alcohol, would certainly indicate an increase of intemperate habits.

INJURIES.—Under the head of general injuries 12 admissions and 11 deaths are returned; the admissions were due to burns and scalds in 7 cases, 2 for multiple injury, 1 fatal, and 3 for asphyxia by drowning; in one instance the man died, in the others there was recovery. There were 6 deaths from drowning (in which the men were not admitted to hospital), of which 3 were accidental and 3 suicidal. From asphyxia by hanging there were 3 deaths, 2 of which were judicial and 1 suicidal. Local injuries caused a rate of admission of 114·7 per 1,000, being an increase of 7·4 on the rate for the previous year, and a good deal above the average. Among the admissions were 161 cases of fracture, 52 of dislocation, 33 of gunshot wounds, and 8 of concussion of brain. The deaths numbered 25, 6 were due to concussion of the brain or fracture of the skull, 2 to fractures, (1 of the femur, and 1 of the spine.) 2 to cut throat, self-inflicted, 1 to foreign body in the intestines, impacted plumstones, and 1 to foreign body in thorax; this was a case in which a man, while eating barley, swallowed a husk, which stuck in his throat, and which gradually worked its way into the right pleura, where it caused an abscess, from which he died. The remaining 13 deaths were caused by gunshot wounds, of which 3 were accidental, 1 homicidal, and 9 were suicidal. Of the deaths from fracture, one was of the thigh and was due to a railway accident, and the other a fracture of the cervical vertebræ was caused by taking a plunge into a bath in which the water was too shallow.

In all there were 15 cases of *suicide* and one of *homicide*.

Surgical Operations.—The following are recorded. An amputation of the forearm on account of gunshot wound; amputation of thumb, 2 cases, and of fingers 2 cases; amputation of lower third of thigh for gunshot wound; and amputation of the leg for gangrene; excision of foreign body from thigh, a stud of an exploded shell; removal of exostosis from tibia; removal of tumors, sebaceous 4, cystic 1, and fibro cellular 1; removal of enchondroma; extirpation of the eye ball; tracheotomy for laryngitis; operation for hepatic abscess; fistula in ano, 2 cases; hæmorrhoids, 5; circumcision 6, &c. All the foregoing operations were successful. The following had a fatal issue:—Extirpation of left eye ball, erysipelas supervened and death ensued; amputation of forearm on account of multiple injury from gun cotton, the patient died from shock; and one case of aspiration of abscess of the liver.

Invaliding.—The number of invalids sent home was 1,049, being in the annual ratio of 30·50 per 1,000, which is less than that in the previous year by 4·71, and than the average rate for the preceding 10 years by 7·09 per 1,000. The decrease is chiefly in the invaliding for debility and for diseases of the nervous and digestive systems. Amongst the various causes of invaliding were the following:—Fevers, 47 cases; the different forms of rheumatism, 46; phthisis pulmonalis, 108, or 3·13 per 1,000; nervous affections, 103, or 2·99 per 1,000, including 53 cases of mental disease, or 1·54 per 1,000; diseases of the circulatory system, 140, or 4·07 per 1,000; dysentery, 45, or 1·31 per 1,000;

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hepatic affections, 104, or 3·04 per 1,000; and debility, 142, or 4·13 per 1,000.

The number of men finally discharged as medically unfit for further service was 446, being in the annual ratio of 12·96 per 1,000, a fractional decrease on the rate for 1882, and 2·80 per 1,000 below the average rate of the preceding 10 years. The principal disabilities necessitating final discharge were tubercular diseases at the rate of 1·63 per 1000; diseases of the circulatory system, 2·82 per 1,000; diseases of the digestive system, 1·13 per 1,000; debility, 1·39 per 1,000; injuries, 1·22 per 1,000; and various other causes at fractional rates.

Officers.—The average annual strength of officers was 1,101, the attacks of illness 911, deaths 26, and 63 officers were invalided. Of the deaths 20 occurred in India, and the remaining 6 out of the country. The rate of prevalence of sickness was 827·4 per 1,000, being less than in the previous year by 40·2 per 1,000. The rate of mortality amounted to 23·62 per 1,000, being an increase of 6·09. The rate of invaliding, 57·22 per 1,000, shows a slight decrease. Eight officers suffered from small-pox. Twelve were attacked with enteric fever, being at the rate of 10·9 per 1,000 as against 8·0 per 1,000 for the men, the deaths (2) were at the rate of 1·81 per 1,000, as compared with 2·44 for the men. Other continued fevers caused 108 attacks of illness and 1 death; ague 155; and remittent fever 22 cases and 1 death; 27 attacks of dysentery, 2 being fatal; 61 of diarrhœa, and 44 of hepatic diseases, among which were 2 deaths. The remaining deaths in the country were due to cholera, erysipelas, secondary syphilis, atrophy of the heart, enteritis, delirium tremens, drowning (accidental), and fracture of skull, of each one case. Pneumonia caused 2 deaths; and there were two from gunshot wound, one homicidal and one suicidal. The invaliding was principally due to hepatic affections, for which 15 officers were sent home; fevers caused invaliding in 14 instances; dysentery 3; nervous affections 4, including one case of mania; diarrhœa 3, general debility 5, dyspepsia 2, and the remainder single cases from various causes.

Women.—The average annual strength was 1,925, and 2,172 admissions into hospital are returned. Of these, however, 568 were due to childbirth, reducing the number of admissions for sickness to 1,604, or 833·2 per 1,000, being less than the corresponding rate for the previous year by 70·7 per 1,000. The deaths, 39 in number, give a rate of mortality of 20·26 per 1,000, which is a fractional increase on the rate for 1882. Eruptive fevers caused 14 admissions, of which 13 were for small-pox, three of the cases were fatal. The rate of these affections, 7·27 per 1,000, compares very unfavourably with that of the men, 3·7 per 1,000; and the liability to infection from attendance on sick children is clearly shown in this contrast. Nine women were attacked with enteric fever; all recovered. There were two admissions and one death from cholera. Three women were attacked with puerperal fever, or at the rate of 1 in every 189 cases of childbirth. Two of the cases occurred at Ranikhet, both fatal, the other occurred at Lucknow. The admissions for diseases of the eye were in the rate of 24·4 per 1,000, a great reduction on that of the previous year. Debility caused 260 admissions. Of the remaining deaths the causes were phthisis pulmonalis 6, dysentery 4, diarrhœa 3, hepatic affections 3, childbirth 3, sunstroke 2, anæmia, apoplexy, simple continued fever, valve disease of heart, pleurisy, peritonitis, ascites, Bright's disease, pelvic cellulitis, abortion, ulcer, and delirium tremens, one case respectively.

Children.—In an average annual strength of 3,587 children there were 1,982 admissions into hospital and 161 deaths, being in the annual ratios of 552·5, and 44·88 per 1,000 respectively, the former being lower than the corresponding rate for the previous year by 78·8, and the latter by 5·45 per 1,000. Eruptive fevers were at the rate of 13·7 per 1,000, being nearly four times greater than that for the non-commissioned officers and men. There were 8 cases of small-pox and 2 deaths; 3 cases of scarlet fever; and 25 of measles. Two cases of enteric fever occurred; both recovered. Paroxysmal fevers caused 272 admissions, or 75·8 per 1,000; 253 of the cases were ague, and the remainder remittent fever; from the latter there were four deaths. There were 2 admissions for cholera, 1 fatal; 3 from diphtheria, 1 fatal; and 8 from erysipelas, 2 fatal. Among tubercular affections there were 3 cases of phthisis pulmonalis, with 1 death; 17 of scrofulous disease of the mesenteric glands,

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12 being fatal; and 2 of tubercular meningitis, both fatal. There were 47 admissions and 28 deaths from convulsions; and 3 cases of hydrocephalus, and 1 death. Diseases of the eye caused an admission rate of 51·8 per 1,000, as against 16·0; the rate for the men. In diseases of the respiratory system there were 193 admissions, or 53·8 per 1,000, principally from bronchial affections, from which there were 11 deaths; of croup and pneumonia 2 fatal cases occurred respectively. Diseases of the digestive system caused 611 admissions, or at the rate of 170·3 per 1,000. The principal admissions and deaths in this order was as follows: teething 161 cases, 13 deaths; dysentery 62 cases, 11 deaths; and diarrhœa 296 cases, and 28 deaths. Debility shows 188 admissions, and 12 fatal cases. Among the remaining deaths are recorded five from premature birth, one from poisoning by prussic acid, one from asphyxia from overlying, one from asphyxia by drowning, three from asphyxia, cause not stated, two from privation, and one from burns and scalds.

Sanitary Conditions. — The Principal Medical Officer states that "judged by the diminished prevalence of sickness, and the lesser intensity of "particular kinds of sickness occurring, the year has been a favourable one "for health; a feature consequent on the scanty rainfall of the year. As ex"ceptional to the general statement it is necessary to note that sickness of a "kind which sanitary measures are peculiarly able to prevent, has been very "apparent in 1883, as scurvy, sometimes in a pronounced form, but most "commonly in a mild one, has been prevalent among men of many corps, and "at different stations; those serving in hill stations have proportionately "suffered most in this respect, and no doubt the scorbutic taint in particular "men has commonly, if not always, been a sequel in malarial fever illness. "To prevent the tendency to scurvy, a slight alteration of the rations issued in "the Bengal command has been recommended."

The following are the principal remarks made on the sanitary condition of the various stations and divisions.

"Presidency District.—*DumDum.*—The water supply at this station (pro"cured from an open tank fed by surface drainage) has, for a long time, been "regarded with suspicion on account of the amount of contamination shown "by chemical analysis to exist; whether this impurity is from sources of "animal or vegetable decomposition was undetermined, though inferentially "the belief is stronger that it is due to the former than to the latter. The "medical officer in charge states in his report, that 'the statistics of this year "'do not show that there has been a great prevalence of the diseases which "'one expects to result from the use of impure drinking water.' As to the "question of obtaining a supply of the purest possible water for drinking and "for cooking, the storage of the rain water falling on the roofs of the various "buildings would probably adequately meet the requirements in this matter.

"*Darjeeling.*—Writing of the difficulty experienced during the rains of pro"curing the sufficient drying of the underclothing returned by the dhobis, "the medical officer recommends the provision of some apparatus for drying "such articles of clothing, believing that the use of damp under-things "induces and aggravates the rheumatic affections so common at this station. "A suggestion is made that the practice of the men cooking their own food "might be introduced at this station. I concur in this recommendation, "believing that benefit would follow the adoption of a measure by which the "rations would probably be better dressed. Indirectly, good would follow "from giving to the men some light work in this way to occupy part of the "time on their hands. I do not think that harm would result from the effect "of the heat of the fires during cooking in the (relatively) short season of hot "weather at Darjeeling."

Vegetables other than potatoes and onions are difficult to procure at this station; and attention is now being given to the establishment of soldiers' gardens.

"Allahabad Division.—*Cawnpore.*—The medical officer repeats a recom"mendation that the dhobis tank, situated 300 yards from the barracks, should "be filled in, or that means should be taken for keeping it permanently full of "water, which is now not the case. Green vegetables, additional to the autho"rised diets, procured abundantly from the hospital garden, have been given to "certain of the sick in hospital. The regulations respecting the keeping of

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“the various buildings in a proper state for the health of the inmates were well attended to.

“*Dinapore.*—Cholera and enteric fever were prevalent among the troops during the year, but it is stated that the occurrence of either disease was not connected with any recognisable insanitary condition of locality or buildings.

“*Chunar.*—It is reported that the married quarters are insufficient in respect of area, and a verandah is urgently wanted on their east side.

“OUDH DIVISION.—*Sitapur.*—No insanitary condition is noted by the Medical Officer respecting the buildings; and he does not connect the occurrence of a relatively considerable amount of enteric fever with any ascertained defect in locality or lodging.

“*Lucknow* and *Fyzabad* are reported to be in a satisfactory sanitary condition.

“ROHILCUND DISTRICT.—The prevalence of sickness in this district was augmented for particular stations by the composition of the troops in it, a relatively large number of whom had been quartered at unhealthy stations in the Punjab immediately before their arrival in this district; and the subjects of malarial illness continued to have relapses of it during the year.

“*Shahjehanpur.*—During the year the tiled roofs of six of the barracks have been replaced by thatched ones; advantageously as to coolness.

“*Ranikhet.*—The provision of a warm vest, to be worn during the cold weather under the serge jacket, is recommended, also watch cloaks for men on sentry.

“The recommendation of the issue of 4 ozs. of fresh vegetables daily to each man, in addition to a pound of potatoes is based on the ground of the prevalence of scurvy amongst the men at the station during the year. At one time (the average annual strength being 463 non-commissioned officers and men), 247 suffered from this affection, usually in a slight form. The very exceptional prevalence of the disease was consequent on the malarial illness from which most of the men had suffered; even after two months of careful attention to their health, and the special issue to them of lime juice, fresh vegetables and fruit, it was considered that in August 200 men of the battalion quartered at the station were not fit to march to Meerut on account of weakness consequent on scorbutic taint.

“*Chaubuttia.*—The sanitary condition of the station was good. In contrast with the statement made above respecting the prevalence of scurvy in the adjoining station of Ranikhet, is that made respecting the troops here, namely, that the men were generally free from scurvy. The immediately preceding station of the corps was different. That at Ranikhet arrived from Mooltan, and that at Chaubuttia from Mean Meer, but both regiments had in common the feature of a great prevalence of malarial illness during 1883 consequent on the relapses due to the previously acquired disease.

“GWALIOR DISTRICT.—*Morar.*—The chief sanitary recommendation made related to the dieting of the men. Special means were required for the abatement of the scorbutic illness which appeared among them. Lime juice was issued generally for nearly three months. At Fortress Gwalior also lime juice was given from May to August. For about three months of the year the potato ration was very inferior, and at the time other culinary vegetables were not procurable the Medical Officer recommended the use of a species of sorrel as a substitute and an antiscorbutic food; the men, however, would seldom eat it.

“Certain wells sunk in the low ground at the base of the rock on which the fortress stands were found on analysis to yield contaminated water. They were accordingly closed, and means taken to keep pure the water of the well retained for use.

“*Jhansi.*—An interesting statement is given in the report by the Medical Officer which bears instructively on the notices made above in the cases of Morar and Fortress Gwalior respecting the prevalence of scurvy at these places. Carefully made inspections of the troops at Jhansi did not reveal any noticeable prevalence of this affection amongst the men; but it is stated that the sale of tamarind drunk at the coffee shop sometimes amounted to 600 glasses a day, or an average of nearly two glasses to each man, and it

" is said that chemical examination showed that each glass contained a con- *Bengal.*
" siderable quantity of citric acid.

" Saugor District.—*Saugor.*—It is understood that a new cantonment,
" with new buildings is to be laid out for this station.

"*Pachmarhi.*—It is reported that the barrack rooms are hot in summer
" from want of greater height, and owing to the imperfect protection from the
" sun given by an insufficient thickness of roof. It is understood these im-
" perfections will be remedied at once.

" Meerut Division.—*Muttra.*—During the year some important measures
" in connection with sanitation have been carried out. The barrack bunga-
" lows, the married quarters, and the hospital have been re-roofed. Certain
" superficial drains have been reformed in masonry, so that waste water is now
" effectually carried away. The old range of cells is in course of demolition
" prior to the substitution of others of an improved kind.

"*Agra.*—It is recommended that the main drain of the cantonment be
" reformed, with a view of procuring a more rapid flow. The re-arrangement
" of certain buildings allotted for hospital purposes and additional provision
" in connection with them is to be carried out at once.

" *Roorkee.*—The barrack bungalows suffered greatly in a hurricane in June,
" 16 out of 21 were unroofed, and of those which escaped two were subse-
" quently destroyed by fire.

" Sirhind Division.—The sanitary condition of the barracks and hospitals
" at the different stations in the division has generally been good. The
" Medical Officers at Umballa and Subathu notice the fact that scurvy appeared
" in a slight form among a portion of the men; in the latter case it is said to
" have been owing to the scarcity of fresh vegetables.

" Lahore Division.—At Mean Meer the sanitary condition of the can-
" tonment was good. Extra vegetables and lime juice were issued to part of
" the force during the last month of the year on account of slight appearance
" of scurvy.

" At *Fort Lahore* in July there was insufficient hospital accommodation.
" An adjoining building was occupied additionally. Some drainage improve-
" ments effected.

" At *Amritsar* the drainage of the ditch at Fort Govindghur was recom-
" mended. Other stations in the division were in a satisfactory sanitary con-
" dition. At Bhagsu, however, the open conduit which carries the water
" supply from its source to the barracks is reported to be imperfectly protected
" from the ingress of surface water and other contamination.

" Rawal Pindi Division.—The sanitary state of Rawal Pindi was good,
" but the hospital is reported on adversely; it is understood, however, that its
" reconstruction is to be shortly carried out.

" *Fort Attock.*—The supply of water is liable to fail during the hot season,
" and better means for filtration of the river water, then necessarily used, are
" required.

" *Campbellpore* was re-occupied during the year, after being vacated abont
" eight months. Some of the barrack rooms were out of repair, but were
" in progress. The Medical Officer connects the occurrence of one case of
" enteric fever with defective drainage.

" The sanitary condition of *Murree* was good, and also that of the gullies
" and camps in the neighbourhood. At Bara Gully the hospital had been
" occasionally crowded, and at Murree it was necessary to occupy the verandahs
" of the barracks for some time.

" Peshawar District.—The warming of certain of the barrack rooms at
" Peshawar has been improved by the addition of stoves to the existing pro-
" vision of one fireplace, when that only was provided for a room. The
" sanitary condition of the troops, so far as this was dependent on lodging,
" food, clothing, duties, &c., was good.

" *Nowshera.*—The only recommendation made from this station is one
" relating to the clothing of the men. The Medical Officer considers that in the
" cold weather cotton-wadded coats should be worn.

" The sanitary condition of the encampment at Cherat was good."

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The average annual strength of warrant officers, non-commissioned officers, and men was 10,612, the number of admissions into hospital 10,517, and of deaths 120, inclusive of those of 12 invalids who died on passage home or after arrival in England; the number of men constantly sick was 633·79.

From these figures the annual admission rate is found to be 991·0 per 1,000, the death rate 11·31, and the rate of constantly sick 59·72 per 1,000. Compared with the corresponding rates for the previous year, a decrease of 78·0 per 1,000 has occurred in the rate of admission, but a fractional increase in both the rate of mortality and that of constantly sick; and in comparison with the similar average rates for the preceding 10 years, a decrease of 208·8 and 4·62 per 1,000 is noticed in the admission and death rates respectively, but in the rate of constant inefficiency through sickness there is an increase of 1·62 per 1,000.

The average sick time to each soldier during the year was 21·80 days, and the average duration of each case of sickness 22·00 days, the former being longer by a small fraction, and the latter by 1·72 days, than the corresponding period in the previous year.

In the native army it is stated that the admission rate was 348·9 per 1,000, less than in the European force, but the death rate was 1·69 higher.

In Abstract No. XXIII. is a table taken from the report of the Principal Medical Officer, Surgeon-General C. D. Madden, showing the average strength, admissions, and deaths in the different circles and stations in the command. The highest admission rates during the year, excluding depôts and stations where the average strength was less than 100 men, were at Bangalore 1329·72, and Rangoon 1285·71 per 1,000, and the lowest at Port Blair, 661·97, Thayetmyo 761·76, and Secunderabad 805·36 per 1,000. The rate of mortality was highest at Kamptee, 18·76 per 1,000, and lowest at St. Thomas's Mount.

At the depôt Poonamallee the admission rate was high, 1714·91 per 1,000, owing to the small average strength, and was in excess of that of the former year, but at Wellington the sick rate was only 682·41 per 1,000, showing a reduction, 447·08. The rate of mortality is reduced in both these stations. Comparing the rates of admission at some of the larger stations with those in the preceding year, there was an increase at Bangalore of 115·69 per 1,000, and at Rangoon one of 139·66, but at Secunderabad there was a decrease of 85·62 per 1,000, at Bellary one of 266·74, at Kamptee one of 232·63, at Madras one of 71·60 per 1,000, and at Tonghoo one of 405·69.

Among the rates of mortality the greatest increase, 9·86 per 1,000, occurred at Kamptee, and was due to the occurrence of deaths from enteric fever and cholera. Cannanore, Bangalore, and Tonghoo all show an increase, but in the rest of the larger stations a decrease is observed, that at St. Thomas's Mount being 7·48 per 1,000.

The more important of the health statistics of the different corps which served in the command are shown in Abstract XLIV. Taking arms of the service, it is observed that the admission rate in the cavalry was 1234·2, and the death rate 9·91 per 1,000; in the artillery the rates were 1099·1 and 10·08; and in the infantry 943·4 and 10·31 per 1,000 respectively. The high rate of admission in the cavalry was caused by the amount of sickness in the 12th Lancers in Bangalore, the rate per 1,000, amounting to 1527·0, while in the 14th Hussars at Secunderabad the rate was only 840·1 per 1,000.

In the artillery the highest admission rate was 1461·5 per 1,000 in a battery at Bangalore, and the lowest, 732·5, in one which was quartered nearly the whole year at St. Thomas's Mount.

In the infantry the sick rate was highest in the 1st Battalion Oxfordshire Light Infantry at Bangalore, 1222·6 per 1,000; the lowest in a wing of the 2nd Battalion Bedfordshire Regiment at Thayetmyo, 675·1 per 1,000; the rate of mortality was greatest in the 2nd Battalion Somersetshire Regiment at Kamptee, 16·79 per 1,000, and least in the 2nd Battalion Hampshire Regiment at Cannanore, 6·34 per 1,000.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract XXII., and the relative prevalence of sickness and mortality from them in each of the administrative circles is given in Abstract XXIV. taken from the report of the Principal Medical Officer. *Madras.*

General Diseases.—Including both groups of this class, the admission rate, 297·5 per 1,000, is less than that of the previous year by 56·3 per 1,000, but the death rate, 5·84, is higher by 1·30 per 1000. In comparison with the average of the preceding four years there is a considerable reduction, more than a fourth in the admission rate; the death rate, however, is increased.

Diseases of the Febrile Group.—The total number of admissions was 1,426, of deaths 44, and of constantly sick 61·19, being in the respective annual ratios of 134·3, 4·14, and 5·76 per 1,000.

Compared with that for the previous year a decrease of 47·5 per 1,000 is observed in the admission rate, and in comparison with that of the average of the preceding four years a decrease of 195·7 per 1,000. This great reduction is due chiefly to the diminished prevalence of paroxysmal fevers. The rate of mortality is, however, fractionally higher than in the preceding year, and 1·02 per 1,000 above the average. The constantly sick rate is also fractionally above that in 1882, but a good deal below the average.

As in the previous year, the Nagpore circle has the highest admission rate, 424·0 per 1,000, which, however, is less than that in 1882 by 81·4 per 1,000. The only circle that shows an increase in prevalence of these diseases is that of the Hyderabad Subsidiary Force, the rate 127·9 being increased by 39·71 per 1,000. In all other circles a decrease has occurred, that in the Western circle, however, being only fractional. The decrease in the rate at the Depôts is marked, being 275·0 per 1,000. The rate of mortality is highest in the Nagpore circle, 12·11 per 1,000, being an increase of 9·72 on the former year, due to the occurrence of cholera and a greater number of deaths from enteric fever; an increase is noticed in the Bangalore and Hyderabad circles of 1·80 and 2·56 per 1,000 respectively, the former being due to enteric fever, and the latter to cholera as well as that disease.

Under the head of *eruptive fevers* 14 admissions are shown, 9 of these were for small-pox, one case was fatal; the disease was prevalent among the civil population. A case of scarlet fever occurred at Bangalore in a man who had been three years in the country and no source of contagion could be traced.

Continued Fevers.—94 admissions and 29 deaths from enteric fever are returned, being in the respective annual ratios of 8·8 and 2·73 per 1,000, as against 4·3 and 2·13 per 1,000 in the previous year, and against 2·2 and 1·17 per 1,000 respectively in the average of the preceding four years. The rate of mortality to attacks, however, 30·8 per cent., compares favourably with 48·9 per cent. in 1882. Abstract XXV. gives a table showing the stations at which the admissions and deaths from enteric fever took place in each of the four quarters of the year. From this it appears no less than 41 cases and 11 deaths occurred in Bangalore; 28 cases and 7 deaths in Secunderabad; and 10 cases and 4 deaths at Kamptee. The majority of the cases, 60 with 16 deaths, occurred in the third quarter of the year, 14 and 4 deaths in the second, and 13 and 6 deaths in the last quarter. The Principal Medical Officer points out that 4 of the admissions were under 20 years of age; 67 between 20 and 24; 18 between 25 and 29 years, and the rest over that age. Also that 37 of the men attacked were under 12 months' service in India, 26 under two years, 12 under three years, and the remainder over that time. The Medical Officers in charge of the station hospitals at Bangalore were not able to state definitely the cause of the disease in that station, but they both allude to the impurity of the water supply from the Ulsoor tank and Dhobis well; and one states that in June, July, and August it was "very bad owing to deficient rainfall." He points out, however, that there were no cases among the women and children who, presumably, used the same water, nor were there any among the Royal Engineers, whose water supply was from a well and was good. At Secunderabad the Medical Officers state with regard to the causation of the disease that "it is impossible to speak with any certainty; nothing insanitary could "be detected in the barracks, and the only presumption is that the disease is "contracted in the bazaars." The drinking water taken from the rifle range was suspected, but nothing definite could be asserted against it. From Kamptee also it is reported that the disease could not be traced to any sanitary defects. At Bellary, where 8 cases and 5 deaths occurred, it is reported that 5 of the cases happened in September within 12 days of each other, and the Medical

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Officer in charge reports that "this occurrence naturally drew attention to the "sanitary conditions, but after careful examination of all surroundings, and "the water supply, nothing was discovered which threw light on the cause "of the outbreak: two disused wells were reported by the men as being "offensive, and though the medical officer failed to perceive this himself, they "were at once cleaned out, and at the same time the drainage in rear of the "barracks was repaired."

Other continued fevers caused 437 admissions, or 41·2 per 1,000, a decrease of 6·0 on the rate for the preceding year, but less than half that of the average of the previous four years.

These affections were more prevalent in the Hyderabad, Bangalore, and Burmah districts, but less so in all the others, notably in the Eastern and Western districts.

It is under the head of *paroxysmal fevers* that the greatest decrease of prevalence among febrile affections has occurred. 853 admissions and 3 deaths are returned, being in the annual ratios of 80·4 and ·28 per 1,000, which show a reduction of 46·2 and ·09 per 1,000 respectively, on the corresponding rates for the previous year. The admission rate of the year under report is also but little more than one third of that of the average of the preceding four years.

Paroxysmal fevers were most prevalent in Bangalore, Hyderabad, Burmah, and Nagpore; the admission rate in the last-named circle was the highest, 367·4 per 1,000, but this and all the other circles show reduced admission rates as compared with those of 1882, with one exception, Nagpore, in which the rate is slightly increased. Out of the total number of cases, 125 were due to remittent fever, and also the three deaths.

Cholera caused 19 admissions and 10 deaths, giving an admission rate of 1·8 and ·94 per 1,000, as against 1·4 and ·83 in the previous year, both rates being lower than the average of the four preceding years. The Principal Medical Officer reports that the disease was very prevalent among the civil population, especially in the southern parts of the Presidency. Of the 19 cases among the troops 8 occurred at Kamptee, 2 at the neighbouring station of Sitabuldi, 5 at Secunderabad, 3 on the march, and 1 in Bellary.

Abstract No. XXVI. shows the seasonal occurrence of the disease in the several stations where the garrisons were attacked, from which it will be observed that 11 of the total number of 19 cases happened in the third quarter, and 6 in the fourth quarter of the year. At Kamptee, on the occurrence of the cases prompt measures were adopted (by removal into camp) to prevent the spread of the disease, and with success, as the epidemic was prevailing at the time in the station. At Secunderabad the first case is believed to have been contracted at Chudderghat near the city; the second case was in the military prison, where the man had been 30 days; the cause could not be traced and there was no possibility of communication with the outside. In the third case the man had not been out of barracks for three weeks, but the other two cases occurred in the same company as the foregoing.

Of the remaining 9 cases in the febrile group of diseases 4 were due to erysipelas and 1 to pyæmia; in the latter case the man was under treatment for stricture of the urethra, the pyæmic symptoms set in 31 days after admission, and the disease terminated fatally in seven days.

Diseases of the constitutional group.—1,732 admissions and 15 deaths are returned, 6 of the deaths being those of invalids. The annual admission rate, 163·2 per 1,000, is lower than that of the previous year by 8·8, and also somewhat below the average of four years; the rate of mortality, 1·41 per 1,000, is increased by ·58 above that of the preceding year, and above the average by ·34 per 1,000.

Rheumatism caused 259 admissions, or 24·4 per 1,000, a reduction of 5·9 on the rate for 1882, and about the same below the average rate; 25 only of the cases are returned as acute rheumatism. These affections were most prevalent in Bangalore, Burmah, and the Western circles, and least in the Eastern district. The highest rate of admission was 35·34, and the lowest 11·69 per 1,000.

Syphilis.—The rate of admission for primary disease was 110·0 per 1,000, being fractionally greater than that of the preceding year, and by 5·1 than the average rate for the previous four years. Secondary syphilis, with a rate of

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20·3 per 1,000, was somewhat less prevalent than in 1882, and also than in the previous four years. One death is returned from this form of the disease. The whole of the circles, except Hyderabad, show a decline in the prevalence of primary syphilis; but the admission rates, especially at Bangalore, where it reaches 163 per 1,000, are still generally very high. With regard to secondary syphilis, its prevalence is reduced in the Hyderabad, Nagpore, and Burmah circles, but increased in all other districts.

Including gonorrhœa and its sequelæ, the rate of prevalence for all forms of venereal disease amounted to 243·2 per 1,000, which is lower than that in 1882 by 13·2, and fractionally lower than the average rate. The rate of constant inefficiency from these affections was 18·82 per 1,000, fractionally lower than in the previous year, but slightly above the average rate of four years.

Tubercular Diseases caused 57 admissions and 11 deaths, including 5 of invalids, being in the annual ratios of 5·4, and 1·04 per 1,000, as compared with 6·2 and ·65 per 1,000 in the previous year; and in comparison with average rates, that of admission is slightly decreased, but that of mortality increased. These affections were most prevalent, in order of frequency, at the Depôts, and in Burmah, Nagpore, and the Eastern district. All the deaths were due to phthisis pulmonalis.

Thirty-three cases of other constitutional diseases included 3 of cancer, 2 fatal; 3 of diabetes; and 27 of anæmia; the death of an invalid at sea from dropsy is also reported.

LOCAL DISEASES.—*Diseases of the Nervous System.*—123 admissions and 9 deaths are returned, being in the ratios of 11·6 and ·84 per 1,000, the former showing a decrease of 2·2, and the latter one of ·55 per 1,000; and in both cases there is a decrease as compared with the average of the preceding years. There is a marked decrease in cases of sunstroke as compared with 1882, when the admissions for this affection were 12 with 6 deaths, while in the year under review there were only 5 cases and 3 deaths. Amongst the other nervous complaints are recorded 14 of epilepsy, 7 of melancholia, a like number of dementia, and 4 of mania. The remaining deaths were due to meningitis, two cases, and to abscess of brain, apoplexy, paraplegia, and tetanus, one case respectively. Comparing the results with those of the previous year nervous diseases were less prevalent in all the circles except the Western, but more fatal in Hyderabad and Nagpore.

Diseases of the Eye caused an admission rate of 15·0 per 1,000, slightly below the average rate, but above that of 1882; the cases were chiefly conjunctivitis.

Diseases of the Ear, with a rate of prevalence of 12·2 per 1,000, were slightly in excess of the previous year as well as of the average.

Diseases of the Circulatory System caused 199 admissions and 2 deaths, one being that of an invalid; the annual ratios were 18·8 and ·19 per 1,000 respectively. The rate of prevalence is almost identical with the average, but above that of the preceding year by 2·6 per 1,000; the rate of mortality shows a fractional decrease. The highest rate of admission was 26·32 in the Western circle, and the lowest 11·42 per 1,000 in Hyderabad. Admissions were less numerous than in the preceding year in all the divisions except Burmah; and were most frequent in the Western circle, Bangalore, and Burmah. The majority of the cases were due to palpitation, being in the proportion of 15·17 per 1,000 of strength against 19·97 in 1882. The other more notable affections were hypertrophy, and valve disease of the heart, and both the deaths were due to the last named.

The rate of admission for *diseases of the absorbent system,* 35·8 per 1,000, was increased by 7·6 on that of the previous year, and by 6·8 on that of the average. All but 20 of the cases were affections of the inguinal glands, and many were presumably connected with venereal disease. The highest admission rate, 56·06 per 1,000, is in the Western district, and the lowest, 8·07, in the Nagpore district. One case of goitre occurred at Bangalore.

Diseases of the Respiratory System.—280 admissions and 4 deaths are returned, being in the annual ratios of 26·4 and ·38 per 1,000, the former being less than in the preceding year by 4·4 per 1,000, and the latter fractionally greater; both, however, were below the average rates. Prevalence of these affections was greater than in 1882 in the Eastern and Western circles, but less in the other divisions. Bronchial affections caused 236 of the admissions, but there were 10 cases of asthma, 15 of pneumonia, and 9 of pleurisy; 3 of the deaths were due to pneumonia, and 1 to bronchitis.

The admissions for *diseases of the digestive system* numbered 2,347, and the deaths 24, including that of an invalid, being in the annual ratios of 221·2 and 2·26 per 1,000 respectively. A reduction of rate of prevalence of 3·4 per 1,000 is observed in comparison with the preceding year, but one of 23·5 per 1,000 when compared with the average rate. The mortality rate also shows a slight reduction in both cases. The admissions in Burmah were again more numerous than in any other of the circles, but less than in 1882. Hyderabad also shows a reduction, but in all the other circles there is an increase. The larger proportion of the cases occurred under the heads of dysentery, dyspepsia, diarrhœa, hepatitis, and tonsillitis. Of the deaths 21 were caused by hepatic affections, including 4 cases of abscess of the liver; the remaining 3 were due to dysentery.

Abstract XXVII. shows the prevalence of dysentery, diarrhœa, and hepatitis, in each of the administrative circles of the command during the year, and Abstract XXVIII. the prevalence and mortality from these diseases in each quarter of the year. From the latter it appears that dysentery was most prevalent in the first and third quarters of the year; hepatitis, including abscess of the liver, in the third and fourth quarters, and diarrhœa in the second and third quarters. The total admissions for dysentery are in the ratio of 48·34 per 1,000, and the deaths in that of ·28, against 50·29 and ·46 per 1,000 in the previous year. The disease was more prevalent in the Eastern, Western, and Burmah circles. The total admissions for diarrhœa are in the ratio of 42·97 per 1,000, being 3·77 in excess of that in 1882; the disease was most prevalent in the Nagpore and Bangalore circles. The admissions for hepatitis and abscess of the liver are ·79 per 1,000, more numerous than in 1882, but the deaths less by ·06 per 1,000. In all the circles, except the Eastern and Western, the admissions were less numerous than in the preceding year.

Diseases of the Urinary System give a total admission rate of 118·9, and a rate of mortality ·57 per 1,000; 112·9 per 1,000 of the admission rate is due to gonorrhœa and its sequelæ. The total admission rate is less by 12·5 than that in the former year, and by 4·6 than the average, the greater part of the decrease being due to the diminished prevalence of gonorrhœa. Gonorrhœa shows a decline in all the circles except Bangalore, where an increase of 15·43 per 1,000 is observed. Among other diseases were 8 cases of Bright's disease, from which there were 4 deaths, including an invalid; 2 deaths of invalids from abscess of the kidney are recorded.

The admission rates for *diseases of the generative system*, and of *the organs of locomotion* were 12·2 and 4·0 per 1,000 respectively, both lower than the average rates, and the rates in 1882. A death of an invalid from caries of lumbar vertebræ is recorded. *Diseases of the cellular tissue* caused a rate of prevalence of 18·0 per 1,000, being a slight increase; the majority of the cases were abscess, from which there was one death.

Diseases of the Cutaneous System were at almost the same rate of prevalence as in the former year, 70·1 per 1,000. The cases were of a varied character, mostly ulcers and boils, and do not call for any special notice.

Debility.—259 admissions are shown under this head, the annual ratio, 24·4 per 1,000, is an increase of 5·4 on the previous year, but still considerably below the average. An increase is noticeable in all the circles except the Eastern.

POISONS.—The admissions numbered 24, and the deaths 2, the admission rate, 2·3 per 1,000, showing a slight decrease as compared with the average rate, as well as that of 1882, the death rate ·19 per 1,000 is identical with the average rate. The admissions were due to delirium tremens in 16 cases, alcoholic poisoning in 6, and to poisoning by the seeds of a species of jatropha, and poisoned wound from dead animal matter, in one case each. The deaths were caused by delirium tremens in one instance, the other was due to poisoning by opium and occurred to a prisoner in Moulmein gaol.

INJURIES.—There were 7 cases of general injury, of which 6 were fatal out of hospital. Of the fatal cases one was due to multiple injury and 5 to drowning. The case of multiple injury was that of a man at Port Blair, whose dead body was found in the jungle, where he had been attacked by an escaped convict and terribly mangled with an axe. All the cases of drowning were accidental; one man was drowned in a tank at Secunderabad while trying to save the life of a comrade, two lost their lives in the river on the passage between Tounghoo and Rangoon, and the fourth was drowned in the Adyar River while moving from Madras to Pallaveram. The remaining case was that of a man at Bangalore, who fell into a tank while under the influence of drink and was drowned. *Madras.*

Injuries of a local character caused admission and death rates of 100·6 and ·57 per 1,000 respectively, both being slightly below the average rates, and also the corresponding rates in the previous year. A large number of the cases consisted, as usual, of contusions, wounds, and sprains, and there were 53 fractures, 11 dislocations, and 3 admissions, the result of corporal punishment. There were 6 accidental gunshot wounds, of which one, a rifle wound of the abdomen, proved fatal. There were, further, 6 gunshot wounds of a *suicidal* character, of which 4 resulted in death. In one of the latter the man, while labouring under temporary insanity, shot himself through the head; in another case also, the wound was in the head, no motive for the fatal act could be traced; in the third case, that of a corporal, the wound was in the neck, and no cause could be discovered; in the fourth case, the man shot himself through the abdomen, but in this case also, no reason for the infliction of the injury could be ascertained. In addition to these, a case of *homicidal* gunshot wound occurred, the man having been shot in the face by another soldier; he lived for 13 days, but finally succumbed to cerebral symptons resulting from the wound. The sixth case of gunshot wound, with suicidal intent, was one of the shoulder; the man recovered. A man also attempted to commit suicide by cutting his throat, but recovered.

Surgical Operations.—20 in all are recorded. Among these there was one case of amputation of the fore arm, the lower part of which was destroyed by the premature discharge of a big gun while the cartridge was being rammed down. In another case, the ulnar artery was tied to stop hæmorrhage from a wound in the wrist. Two cases of amputation of fingers, one for necrosis, and the other for contraction of tendons, two of amputation of toes, one for contracted tendon, and the other for ankylosis. One case of perineal section was undertaken for the relief of stricture; the remaining operations were for the dilatation of stricture in 7 cases, and others of a minor character.

Invaliding.—347 non-commissioned officers and men were sent home invalided during the year, and 122 men finally discharged as unfit for further service, being in the annual ratios of 32·70 and 11·49 per 1,000 respectively. In comparison with the invaliding rates for the previous year an increase of 3·03 has occurred in those sent home, and one of 2·62 per 1,000 in those finally discharged, but compared with the average rates for the preceding 10 years, a decrease is observed in that of invalided home of 7·57, and one of 4·45 per 1,000 in that of final discharge. The causes necessitating invaliding to England were as follows: Fevers, two cases only as in the previous year. Under diseases of the constitutional group, the number of invalids was 60 or 5·65 per 1,000, against 3·88 in 1882. In this group the chief causes were tubercular diseases 24 (including 23 of phthisis pulmonalis), secondary syphilis 18, and rheumatism 15. Amongst local diseases, those of the digestive system show the largest invaliding rate, 6·41 per 1,000, which is fractionally less than in 1882. Diseases of the circulatory system have also a comparatively high rate of invaliding 4·90 per 1,000, but still it is a decrease on 1882. The chief affections were palpitation 29 cases, and valve disease of heart 11. The invaliding rate for diseases of the nervous system, 3·49, is fractionally above the average. Of 37 cases, 22 were of some form of mental disease and 7 of epilepsy. Diseases of the ear gave a rate of 1·22 per 1,000, an increase on 1882; deafness caused 5 cases. Respiratory affections on the average give a low rate of invaliding, but that in the year under review is only ·47 per 1,000, less than the average by ·43. The invaliding rates for other local diseases are all fractional. 63 men were invalided for debility, or 5·94 per 1,000 more than in 1882, but below the average. Injuries caused the invaliding of 23 men, 2 for general and 21 for local injuries.

The chief disabilities necessitating final discharge from the service were tubercular diseases 15 cases, or 1·41 per 1,000, as compared with an average

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rate of 1·90; diseases of the nervous system 12, or 1·13 per 1,000, greater than the average by ·51; diseases of the circulatory system 23 cases, or 2·17 per 1,000, a slight decrease on the average rate; debility 13 cases, or 1·22 per 1,000, the reduction as compared with the average rate amounting to 2·14 per 1,000; and injuries 12 cases, or 1·13 per 1,000, an increase of ·49 on the average rate for the previous 4 years.

Officers.—In an average annual strength of 313, there were 228 attacks of illness, 3 deaths, and 26 were invalided home. The annual ratios per 1,000 are therefore 728·4, 9·58, and 83·07 respectively. As compared with similar rates in the foregoing year there is a decrease in the rate of sickness of 64·5 per 1,000, and one of 2·84 in that of invaliding; the rate of mortality, however, remains the same. Enteric fever caused 6 attacks of illness, other continued fevers 22, paroxysmal fevers 25, including 9 remittent fever; in addition to these the principal diseases causing illness were diarrhœa and dysentery 24 cases, hepatic affections 14, cutaneous affections and injuries. The deaths were due to apoplexy, fibro cystic tumor, and aneurism of the heart. Invaliding was due to febrile affections in 9 instances, debility 10, hepatic affections 2, and melancholia, ulcer of the cornea, bronchitis, asthma, and dysentery, one case respectively.

Women.—The average annual strength was 825, the admissions to hospital, exclusive of 287 cases of childbirth, 656, and the deaths 14. The admission rate compares very favourably with that for the previous year, being 795·1 per 1,000, as against 1043·4 per 1,000. The rate of mortality, however, amounts to 16·97 per 1,000, being an increase of 4·05. The admission rate for febrile affections was 105·4 per 1,000; for affections of the generative system 135·7; of the digestive system 157·5; and for debility 223·0 per 1,000. In the febrile group there were 2 cases of small-pox, 4 of enteric fever, 2 fatal, other continued fevers 23, and paroxysmal fevers 48. Two cases and 1 death occurred from cholera; and there were 3 admissions and 2 deaths from puerperal fever; phthisis pulmonalis caused 11 admissions and 3 deaths; diseases of the eye 26 admissions; dyspepsia 54; dysentery and diarrhœa 40. The remaining fatal cases were due to fatty degeneration of the heart, abscess of the lung, dysentery, diarrhœa, disease of ovary, and debility, one case each.

Children.—The average annual strength being 1,480, the admissions to hospital were 1,070, and the deaths 68; the ratios per 1,000 were, therefore, 723·0 and 45·95 respectively. A considerable decrease, 309·7 per 1,000, occurred in the rate of admission as compared with the preceding year; there was, however, an increase in that of mortality amounting to 5·71 per 1,000. The rate of admission for febrile affections was 156·7 per 1,000, for respiratory disorders 107·43, and for digestive diseases 220·3 per 1,000. Among the admissions for febrile diseases were one of small-pox, 2 scarlet fever, and 49 of measles, one case fatal; other continued fevers 86, and 1 death; paroxysmal fevers 79, and 3 deaths from remittent fever; there was one fatal case of cholera, and two, also fatal, of diphtheria; eye affections caused 118 admissions, bronchial complaints 151, diarrhœa 163, and dysentery 33, &c. The causes of death, in addition to those above alluded to, were diarrhœa 14 cases, convulsions 12, teething 7, debility 6, tabes mesenterica 5, bronchitis 4, phthisis pulmonalis, jaundice, and premature birth, 2 each, and erysipelas, meningitis, croup, pneumonia, enteritis, and dysentery one case each.

SANITARY CONDITIONS.—The Principal Medical Officer reports that "during the past four years the health of British troops in this command "has been unprecedentedly good, the favourable results in 1883 being "especially notable. Although cholera and small-pox were very prevalent "among the civil population, there were only 19 cases of the former, and 9 of "the latter, among the troops. The death rate for the year was increased by "presence of enteric fever, from which there were 29 deaths. It is impossible "to give any reliable information of the causes which led to the prevalence "of this fever. The strictest attention is paid to the sanitation of barracks "and their surroundings, and the food and water supplies are zealously "guarded from pollution. The latrines are all worked on the dry earth "system and the strictest attention paid to cleanliness and speedy removal "of contents."

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Barracks.—The following notes show the sanitary condition of barracks, and the changes in them that have taken place:—

" The sanitary condition of barracks and subsidiary buildings at Fort St. George and at St. Thomas's Mount, Madras, is reported to have been satisfactory. At Poonamallee the barrack accommodation, though condemned as not being in accordance with the present ideas on the subject, is said to be good enough to afford sufficient space for all stationed there; the sanitary arrangements are thoroughly good. At Bangalore and Bellary all the buildings are reported to be in good sanitary condition, and the ventilation and accommodation satisfactory. The proximity of the artillery barracks at Bangalore to the thickly populated suburb of Ulsoor, objected to in last year's report, is again alluded to; as also that of the infantry barracks to the native town, which caused some anxiety during the prevalence of cholera in the bazar. Efforts were being made by the municipality to improve the condition of the Ulsoor bazar. At Secunderabad the second infantry barracks were rather out of repair, and re-roofing is said to be necessary; sanitation, however, was good. Two ranges of the family quarters of the first infantry corps were converted into a temporary female hospital. Some land under wet cultivation requires draining and planting with trees; the owners, however, object. The drainage of the barracks was improved and 'is now as perfect as it can be without a proper 'system of surface drainage.' The remodelling of the infantry barracks at Kamptee was completed, and they are now well raised from the ground; and the new infantry married quarters are well spoken of. New cook-houses and wash-houses were erected at the north-east side of the barracks.

"At Port Blair the stone barracks having been damaged by earthquake were strengthened by iron girders; and at Rangoon the fourth section of the new barracks was completed and water laid on to Nos. 7 and 8 blocks.

"*Hospitals.*—The hospitals generally were in good order, and their conservancy received strict attention. The faulty position of the station hospital, Madras, has already been alluded to, but both there and at St. Thomas' Mount the sanitary arrangements were well attended to and there was no overcrowding. The hospital at Poonamallee is all that could be wished for as regards accommodation, and is kept in good sanitary condition. The south station hospital, Bangalore, and the station hospital, Bellary, are double-storied buildings and admirably adapted for the accommodation of the sick; the north station hospital at Bangalore is a single station hospital, and is not so good as the other. All these, as well as the outbuildings, are in good repair and excellent sanitary condition. At Bellary and Bangalore there are also good hospitals for women and children. The hospitals at Calicut, Cannanore, and Malliapooram were in good order and well looked after. There were no structural changes in the hospitals at Secunderabad, and all were in good order both as to repairs and in a sanitary point of view. A general female hospital was arranged for, pending the sanction of Government, in the married quarters of the British infantry. At Kamptee there were two station hospitals in operation during the year, but at the end of the year one was closed and all the sick brought into one building. This is said to be old and not equal to modern requirements, and the erection of a new station hospital is deemed desirable. At Rangoon a site for a new hospital was being excavated.

"The *Guard rooms and Cells* were reported to be in a satisfactory condition in all the circles and districts.

"*Conservancy and Latrines* were generally satisfactory, but at Fort St. George the latrine accommodation is limited. It was reported from Secunderabad that there was a difficulty in obtaining sweepers, and lest this should increase, some improvement in the condition of this class of servants was recommended.

"*Baths and Lavatories.*—The arrangements in these were satisfactory and water supply ample.

"*Drainage.*—The Madras municipality were endeavouring to put an end to the long standing nuisance in Fort St. George, caused by the discharge of sewage from the main drain into the sea just outside the fortifications. The drainage of the barracks at Bangalore is reported as satisfactory, but

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" at Bellary, in consequence of the level nature of the ground the surface " drains have to be daily cleansed by sweepers. In the case of Secunderabad " the Deputy Surgeon-General remarks that 'one of the greatest defects in " 'the station is the total want of proper drainage from the town of Secun- " 'derabad. At present the whole of the sewage runs by the back of the " 'staff lines into the Hoosain Saugor tank by which the health of the " 'neighbourhood is being fast ruined.' It is understood that a scheme for " improving the drainage of the town is under the consideration of the Resident. " After heavy rain the water lodges in the low-lying ground in the canton- " ment of Secunderabad, and there are also numerous gravel pits which " become filled with water.

"*Water supply* has generally been sufficient and the quality good. Every " attention has been paid to the protection of the sources of supply, and the " water has been analysed quarterly. At Bangalore the water, which is " obtained from the Ulsoor tank and the dhobi's wells, is filtered at the tank, " and then distributed in pipes by steam power. On delivery it is passed " through Macnamara's filters, and from July to October in 1883 it was " further deemed advisable to boil it before issue. The water supply at this " station is precarious and scanty and liable to dangerous pollution. During " the year the subject received the earnest attention of Government, and it is " hoped that in due course it will be found practicable to give Bangalore a " better water supply. At Secunderabad and Kamptee the water supply is " said to be satisfactory.

"*Cooking and Rations.*—The cooking generally has been varied and good. " At Bangalore the supply of vegetables is abundant and very superior, but " at Bellary less satisfactory as to variety and quality. At Secunderabad the " rations are said to have been of very fair quality and an improvement has " taken place in the manufacture of bread, the work being done by machinery, " and yeast having been substituted for toddy. At Kamptee the supply of " rations was attended to, and besides potatoes, other vegetables are supplied " in season, and fruits are attainable nearly all the year.

"The kitchens were generally in good order and the tinning of copper " cooking vessels were well attended to.

"*Canteens* have been well regulated, and as a rule airy and well-ven- " tilated. The beer and porter supplied at Bangalore were from the Nilgiri " brewery, and are stated not to be approved of by the men, but with this " exception the issues in the command are reported to have been of good " quality.

"*Coffee Shops.*—These are excellent institutions, generally well managed, " and they enable men to get various European supplies at cheap rates."

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The average annual strength of warrant officers, non-commissioned officers, and men was 11,183; there were 13,679 admissions into hospital, 132 deaths, including 16 of invalids, and 632·24 men were constantly sick. The respective annual ratios were, therefore, as follows:—Admissions, 1223·2, deaths, 11·80, and constantly sick, 56·54 per 1,000. Compared with the corresponding rates for the previous year, a decrease of 182·9 per 1,000 is observed in that of admission, and one of 4·93 in that of constantly sick, but an increase of 1·01 per 1,000 in the mortality rate; and in comparison with the similar average rates for the preceding 10 years, a decrease of 342·4 per 1,000 is observed in the rate of prevalence, one of 4·28 in the death rate, and one of 2·72 in the rate of constant inefficiency through sickness.

The average sick time to each soldier was 20·63 days, and the average duration of each case of sickness 16·87 days, the former being shorter by 1·81 days, and the latter fractionally longer, than the corresponding period in the previous year. The total loss for the year by death and final discharge of men from the service was 249, or at the rate of 22·26 per 1,000 of strength, being less than that in 1882 by 3·13 per 1,000.

In Abstract No. XXXI. is a table, taken from the report of the Principal Medical Officer, Surgeon-General G. Auchinleck, showing the average strength, admissions, and deaths, &c. in the different circles and stations in the command. *Bombay.*

From this table it will be seen that in most of the stations there has been a decrease of admission rate as compared with the return for the previous year. The greatest reductions are noticed in the stations of Neemuch, Karachi, and Deesa, being 1042·1, 1020·7, and 641·7 per. 1,000 respectively; and Indore, Baroda, Aden, Belgaum, &c., follow with smaller differences. An increase is observed at Nasirabad of 572·5 per 1,000, at Asirgarh 456·7, Satara 410·1, Mhow 234·3, Poona 95·9, &c. Excluding Sanitaria, the highest admission rate, 2034·5, is furnished by Indore. The ratios for Baroda, Nasirabad, and Satara are also high, and are respectively 1988·2, 1930·3, and 1852·1 per 1,000. The lowest ratio is shown for Aden, 741·8 per 1,000, which is followed by Deesa with 809·7, Belgaum 811·0, and Kolhapur with 875·0. The highest death rate, 24 per 1,000 (other than Khundwa, where there was an average strength of 2), occurred at Asirgarh; the deaths, however, were only 3 in the small average strength of 125. The lowest death rate, 2·94, was in Kirkee.

In comparison with the average of the preceding 10 years, a decrease of admission rate has occurred in nearly all the stations, in some, such as the Presidency and Sind stations, and Poona, Kirkee, and Kolhapur, to a considerable extent; an increase is observed, however, in Satara, Mhow, and Nasirabad, and very slightly in Indore. The mortality rate in this comparison, is increased in Deolalee, Ahmednagar, Satara, Kolhapur, Asirgarh and Indore, but decreased in all the remaining stations.

In Abstract XLV. is a table, taken from the report of the Principal Medical Officer, showing the more important of the health statistics of the corps which served in the command during the year. Taking the different arms of the service the admission rate in the cavalry was 1331·6 per 1,000, in the artillery 1128·9, and in the infantry 1318·8 per 1,000; the death rate was 7·59 per 1,000 in the cavalry. 6·08 in artillery, and 10·42 in the infantry; the rates of invaliding for the three arms were 43·04, 39·54, and 35·34 per 1,000 respectively, and the rates of constantly sick were 54·68, 57·32, and 60·48. Comparing these results with those obtained in the previous year, the admission rate is increased in the cavalry by 161·0 per 1,000, but decreased in the artillery and infantry by 162·6 and 226·0 per 1,000; the rate of mortality is increased in the cavalry by ·58 per 1,000, but decreased in the artillery and infantry by 4·42 and 1·09 respectively; the rate of invaliding is decreased in the cavalry by 3·69 per 1,000, but increased in the artillery by 8·46, and in the infantry by 7·04 per 1,000; and the rate of non-effective through sickness is decreased in the cavalry by 9·10, and in the infantry by 30·89 per 1,000, but increased in the artillery by 1·40 per 1,000. There was only one regiment of cavalry, 17th Lancers, serving in the command; this was quartered at Mhow. The highest rates of admission and mortality in the artillery, of any battery of fair average strength, was in B battery, 2nd brigade, serving at Neemuch. In the infantry the highest rate of admission was 2269·9 per 1,000 in the 1st Worcestershire Regiment at Nasirabad, and the highest rate of mortality in the 2nd North Staffordshire Regiment, 2 months in Karachi, and 9½ months in Quetta. Of any infantry regiment which was the whole year in the command the healthiest was the 1st York and Lancaster Regiment quartered at Aden, the rate of admission being 728·2 and that of mortality 5·11 per 1,000.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract No. XXX., and the relative prevalence of sickness and mortality from them in each of the administrative circles is shown in Abstract XXXII.

General Diseases.—Including both groups of this class the admission rate was 561·5 per 1,000, and the death rate 4·83 per 1,000, the former being less than in the previous year by 161·0, and the latter greater by a small fraction; but in comparison with the average similar rates for the previous four years the admission rate is reduced by nearly half, and the death rate by 1·66 per 1,000.

The admissions and deaths in the *febrile group* of diseases numbered 4,878 and 36 respectively; the annual ratio of admissions, 436·2 per 1,000, shows a

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decrease of 148·1 on the rate in the previous year, and is less than half the average corresponding rate in the preceding four years; the death rate, 3·22 per 1,000, is reduced by ·51 below the rate in the former year, and by 1·72 below the average. The rate of men constantly sick was 13·38 per 1,000, being a decrease of 2·31 on the rate in 1882, and one of 8·65 on the average. The highest admission rate for fevers in any circle was 886·2 per 1,000 in the Mhow circle, and the highest mortality 4·58 per 1,000 in the Poona circle. Compared with the previous year the rate of prevalence decreased very largely in the Sind division, and to a less extent in the Presidency; in the other circles an increase is seen.

Eruptive Fevers caused 12 admissions, of which 10 were for small-pox, one case being fatal, this occurred at Ahmednagar; six cases happened at Poona, the disease was prevalent in the neighbourhood; two cases are returned from Deolalee, and one from Kirkee. The other two admissions for eruptive fevers were due to dengue at Ahmedabad.

Continued Fevers.—Enteric fever caused 60 admissions and 16 deaths, being in the annual ratios of 5·4 and 1·43 per 1,000, as against 4·2 and 1·77 per 1,000 respectively in 1882. The mortality was 26·67 per cent. of admissions, that in the previous year being 41·89 per cent. Of the total admissions and mortality 13 cases and 5 deaths occurred in Quetta (in the Bombay command for the first time), the remainder for the rest of the command being 47 and 11. In Abstract No. XXXIII. will be found a table, taken from the report of the Principal Medical Officer, showing the stations at which the admissions and deaths from enteric fever occurred in each of the four quarters of the year. The first quarter furnished 18 admissions and 2 deaths; the second 7 admissions and 5 deaths; the third 30 admissions and 6 deaths; and the last quarter 5 admissions and 2 deaths. Karachi, Quetta, and Ahmednagar furnished most of the cases, the first mentioned returning 25 admissions and 2 deaths. Nasirabad, which furnished the largest number of cases in the previous year, 13 with 8 deaths, furnished in the year under report only a single case, which recovered. As regards the outbreak at Karachi no direct cause in point of sanitation, &c. was found. The cause of the outbreak at Ahmednagar was supposed to have been on account of a breach in the aqueduct, which, it is presumed, was used by the natives for bathing purposes, &c. This opinion is stated to have been confirmed by the fact that no further cases occurred on the breach being closed. The cause at the other stations was not ascertained. Other continued fevers caused 532 admissions, being at the annual rate of 47·6 per 1,000, which is less than that in the previous year by 27·8, and considerably below the average rate for the preceding four years.

Among the different circles a decrease of prevalence has occurred at Mhow of 50·4 per 1,000, Sind 27·0, and the Presidency 30·5 per 1,000; an increase of 17·9 occurred in Poona, and one of 15·8 per 1,000 in the Sanitaria. Sind gave the highest rate of prevalence, 98·3, and Quetta the lowest, 23·0 per 1,000.

Paroxysmal Fevers caused 4,234 admissions and 10 deaths, being in the annual ratios of 378·6 and ·89 per 1,000; the rate constantly sick was 10·91 per 1,000. Compared with the corresponding rates for the previous year a decrease is observed of 119·9, ·09, and 1·72 respectively; and in comparison with the average of the previous four years the rate of admission is reduced by 415·8, the rate of mortality by 1·07, and the rate of constant inefficiency through sickness by 7·06 per 1,000. Out of the total numbers 73 of the admissions and 8 of the deaths were due to remittent fever, the remaining two deaths are returned as ague.

A decrease of prevalence of malarious fevers is observed in three of the circles, notably that of Sind where the reduction is returned as 999·3 per 1,000, in the Presidency the decrease was 73·4, and in Poona 7·1 per 1,000. Mhow shows an increase of 58·4 per 1,000, and the Sanitaria one of 46·6. Quetta cannot be compared, being its first year in the command. A reduction in rate of mortality is noticed in the Presidency, but an increase in the remaining circles. The highest rate of prevalence was in Mhow 839·0 per 1,000 and the lowest in the Presidency 162·8 per 1,000. The highest rate of mortality was 1·53 per 1,000 in the Poona circle.

Cholera caused 15 admissions and 9 deaths in the whole command, as compared with 10 cases and 7 deaths in the previous year. Abstract No. XXXIV.

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gives a table, taken from the report of the Principal Medical Officer, showing the stations at which the admissions and deaths from cholera took place in each quarter of the year. In the first quarter no case occurred; in the second there were 3 admissions and 2 deaths at Deolalee; in the third quarter 5 admissions and 4 deaths at Ahmednagar, 2 admissions and 1 death at Nasirabad, 1 fatal case at Indore, and 1 case, which recovered, at Mhow; in the fourth quarter there were 2 admissions, recoveries, at Poona, and 1 fatal case on the march. With regard to the outbreak at Ahmednagar, it is stated that the disease had been prevalent in the district and the place itself for some time, and the same is said concerning the attack at Deolalee:—

Diseases of the Constitutional Group.—Rheumatism.—371 admissions are returned from the various forms of this disease, 36 being for rheumatic fever; no death occurred; the admission rate, 33·2 per 1,000, is slightly less than in the previous year as well as below the average rate of the preceding four years. A decrease in rate of prevalence is observed in all the divisions except that of Mhow. The highest rate of prevalence was in Mhow, 43·9 per 1,000 (except Sanitaria) and the lowest, 20·2, in the Presidency circle.

Syphilis.—The admission rate for the primary form of the disease was 61·8 per 1,000, being less than that in the previous year by 7·4, and than the average rate of the preceding four years by 27·2 per 1,000: for the secondary form the rate of admission, 20·0 per 1,000, shows a decrease of 4·9 on the rate in 1882 and one of 3·1 per 1,000 on the average rate.

In the Presidency circle primary syphilis shows a decrease, as compared with 1882, of 5·9, and secondary syphilis one of 2·3 per 1,000. In the Sind circle the admission rates for primary and secondary syphilis exceed the rates in 1882 by 40·9 and 1·6 respectively. In the Poona circle the rate of admission, 66·0 per 1,000, for primary syphilis is reduced by 12·1, but the rate for secondary syphilis is higher by 3·9.

In the Mhow circle primary and secondary syphilis show a decrease of 13·2 and 15·1 per 1,000 respectively. Sanitaria show an increase of 20·7 in the ratio of admissions for primary syphilis, and one of 6·5 in that for secondary syphilis. On the march there was a decrease in the rates for primary and secondary disease of 44·0 and 2·9 per 1,000 respectively. The Quetta district furnished an admission rate of 45·3 for primary, and one of 12·3 for secondary syphilis.

Including gonorrhœa and its sequelæ, the rate of admission for all forms of venereal disease was 193·9 per 1,000, being less than for 1882 by 6·2, and than the average rate by 32·1 per 1,000. The rate of constant inefficiency on account of these affections was 13·53 per 1,000, being fractionally below the average as well as below the similar rate in the preceding year.

Tubercular diseases caused 77 admissions and 13 deaths, including 7 of invalids, after leaving the command. The admission rate was 6·9 and the death rate 1·16 per 1,000; compared with the previous year, both rates show a fractional increase, but in comparison with average rates a similar decrease is observed in both cases. 72 of the admissions and all the deaths were caused by phthisis pulmonalis. The rate of prevalence of tubercular diseases as compared with the foregoing year is increased in the Presidency and Sind circles by 4·7 and 5·9 respectively, and decreased in Poona by ·6, in Mhow by 1·1, and the Sanitaria by 14·4. The rate for Quetta is the smallest of all the rates of prevalence, being only 1·6 per 1,000, while the highest rate, 13·4 per 1,000, is found in the Presidency.

Scurvy caused 11 admissions and purpura one during the year. The rate of prevalence, 1·1 per 1,000, is an increase on that of the foregoing year, but is below the average.

Twenty-six admissions and 5 deaths were caused by *other diseases* of the constitutional group, or 2·3 and ·45 per 1,000, the former being fractionally lower and the latter higher than in 1882. Six of the cases and all the deaths were due to cancer.

LOCAL DISEASES.—*Diseases of the Nervous System* caused 172 admissions and 19 deaths, being in the ratios of 15·4 and 1·70 per 1,000 respectively, the former being slightly less than in 1882, but the latter greater by ·91 per 1,000. Compared with the average ratios for the preceding four years, the rate of prevalence is almost identical, but that of mortality is decreased. Among the admissions were 27 of mental disease, 14 of sunstroke, 20 of epilepsy, 8 of

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apoplexy, and 3 of hydrophobia. There were 8 deaths from apoplexy, 4 from sunstroke, 3 from hydrophobia, and 1 from encephalitis, meningitis, and fibrous tumor of brain respectively. In the Presidency circle the admission and death rates show an increase of 2·2 and ·98 per 1,000 respectively, and in Sind these rates are increased by 5·7 and ·14 per 1,000. In the Poona and Mhow circles there is a decrease of 1·8 and 3·5 respectively in the admission rates, but the death rates are fractionally increased. At Sanitaria the decrease in rate of prevalence is great, it having fallen from 73·5 to 25·1 per 1,000.

Diseases of the Eye caused 151 admissions, or 13·5 per 1,000, a rate below that of 1882, and the average of the preceding four years. The cases were mostly conjunctivitis, and the milder affections of the eye.

Diseases of the Ear and Nose gave admission rates of 11·4 and ·4 per 1,000 respectively, which are in both cases about the average.

Diseases of the Circulatory System.—274 admissions and 8 deaths are returned, being in the annual ratios of 24·5 and ·71 per 1,000. These rates are higher than those in the previous year by 5·4 and ·12 respectively, the admission rate also being considerably, and the death rate fractionally, above the average. Palpitation caused more than three fourths of the admissions, 29 were due to valve disease of the heart, 2 cases fatal, and 10 to aneurism of the aorta, 3 cases fatal; the remaining deaths were due to pericarditis, fatty degeneration of the heart, and embolism one case respectively. In the Presidency, Sind, and Poona circles there was an increase in the rate of prevalence of 5·2, 3·1, and 10·1 per 1,000 respectively, but a decrease of 1·6 per 1,000 in that of Mhow. The highest rate of prevalence was in the Quetta district, 43·6 per 1,000; the highest rate of mortality was 1·03 per 1,000 in the Presidency circle.

Diseases of the Absorbent System caused 110 admissions, or at the rate of 9·8 per 1,000. This rate of prevalence is less than half that in the preceding year, and than the average rate by 13·4 per 1,000. There is a decrease observed in the rate of admission in all the administrative circles.

Diseases of the Respiratory System caused 488 admissions and 13 deaths, including 2 of invalids, being in the ratios of 43·6 and 1·16 per 1,000 respectively. The rate of prevalence is below the average rate by 10·5, and the rate in the foregoing year by 1·6 per 1,000. The rate of mortality, however, while below the average, is fractionally increased as compared with the rate in 1882. 413 of the admissions were due to bronchial affections, and there were 37 cases of pneumonia and 11 deaths. The remaining two deaths are returned as having been caused by gangrene, and passive congestion of the lung respectively. In the Presidency circle the admission and death rates are less than those of the preceding year, the former by 16·6 and the latter by 1·13 per 1,000. In the Sind circle the admission and death rates have increased by 49·6 and 1·99 per 1,000 respectively. In the Poona circle the admission rate is identical with that of 1882, but there is an increase of ·74 in the death rate. In the Mhow circle the admission rate shows a decrease of 16·8 per 1,000, but the death rate is *nil.* There was also a considerable decrease of prevalence in the Sanitaria.

Diseases of the Digestive System.—The admissions into hospital numbered 2,038, and the deaths, including 3 of invalids, 23, being in the annual ratios of 182·3 and 2·06 per 1,000 respectively.

In comparison with the corresponding rates for the previous year there is a fractional decrease in that of admission, but an increase of ·79 per 1,000 in that of mortality; but compared with the average similar rates for the preceding four years a considerable decrease has occurred in both, being 36·5 in the rate of prevalence and 1·73 in the death rate.

Among the different circles the highest rate of prevalence, 206·6 per 1,000 occurred in the Quetta district; and the highest rate of mortality in that of Sind. Compared with the return for the preceding year a decrease of 16·9 per 1,000 is observed in the rate of prevalence in the Presidency circle, and one of 11·7 in Mhow. In Sind an increase of 63·3 has occurred, but in Poona the rate of prevalence, 167·2, is almost identical with that of 1882. The rate for the Sanitaria is reduced by 35·1 per 1,000.

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In the rates of mortality a fractional decrease is observed in the Presidency, in Sind a relatively large increase, 3·11 per 1,000, and in Poona and Mhow an increase of 1·90 and ·08 per 1,000 respectively.

The principal causes of admission were tonsillitis 215 cases, dyspepsia 390, diarrhœa 425, dysentery 193, and hepatic affections 218 cases. The deaths were caused by abscess of the liver, 10 cases, dysentery 6, hepatitis 2, and cirrhosis of the liver, jaundice, peritonitis, ascites, and perforation of the duodenum one case respectively.

In Abstract No. XXXV. is a table, taken from the report of the Principal Medical Officer, showing the prevalence of dysentery, diarrhœa, and hepatitis in each of the administrative circles; and in Abstract XXXVI. a table showing the prevalence and mortality due to dysentery, diarrhœa, and hepatitis in each quarter of the year.

Of the total number of admissions 193 with 6 deaths were for dysentery, causing ratios of 17·2 and ·54 respectively, which exceed the corresponding rates for 1882, the former by 4·1 and the latter by ·34 per 1,000. Diarrhœa caused an admission rate of 38·0 per 1,000, being a decrease of 9·4; and hepatitis and abscess of the liver caused 166 admissions and 10 deaths (in the country), the ratio per 1,000 of admissions is 14·9, and that of death ·89 per 1,000, the former showing a decrease of 3·0, and the latter an increase of ·20 per 1,000. Comparing the different circles the highest ratios of prevalence for dysentery and hepatitis are in the Quetta circle, and the highest rate of diarrhœa in Mhow. From the second table it will be observed that all three of these diseases showed the greatest prevalence in the third quarter, and the lowest in the fourth quarter.

Diseases of the Urinary System.—The admission rate for gonorrhœa was 96·0 per 1,000, and for its sequelæ 16·1, the former being slightly below the average rate, but above that in the previous year by 7·8, and the latter fractionally above the average, and below the rate in 1882 by 1·7 per 1,000. The prevalence of gonorrhœa and its sequelæ was increased in all the administrative circles except that of Mhow, in which there was a decrease of 13·2 per 1,000. The increase in the other circles varies from 29·1 per 1,000 in Poona to 15·7 in Sind.

Other urinary diseases caused 92 admissions and 2 deaths, including one of an invalid. The rate of admission was 8·2, and that of death ·18, as compared with 9·2 and *nil* in 1882, and 10·2 and ·25 per 1,000 as average rates. Among the admissions were 10 for Bright's disease, which was also the cause of both the deaths.

Diseases of the Generative System caused an admission rate of 8·2 per 1,000, being less than the average, as well as the rate, of the previous year.

Diseases of the Organs of Locomotion, with a rate of admission of 5·9 per 1,000, were more numerous than the preceding year, as well as above the average, but *diseases of the cellular tissue*, with an admission rate 12·7 per 1,000, were considerably less numerous than in other years.

Diseases of the Cutaneous System caused an admission rate of 62·4 per 1,000; this rate is below the average of four years by 9·3, and lower than that in 1882 by 4·8 per 1,000. In the Sind and Mhow circles an increase of prevalence of these affections occurred, but a decrease in the remainder.

Debility caused 414 admissions or 37·0 per 1,000, differing only fractionally from the rate in 1882, but below the average by 8·7 per 1,000. An increase of admission rate for this condition occurred in the Sind and Poona circles, and also in the Sanitaria.

POISONS.—56 admissions and 3 deaths, being in the ratios of 5·0 and ·27 per 1,000, both higher than in the previous year, but only differing fractionally from average rates. The cases included 37 of alcoholic poisoning, and 16 of delirium tremens, and there is one death returned from each. In addition there was an admission for oxalic acid poisoning, one for opium poisoning, and one, with fatal result, from irritation caused by bee stings.

INJURIES.—Two admissions and 3 deaths are returned for general injuries. The admissions were due to burns and scalds, and the deaths to asphyxia by drowning in 2 cases, and in the third to asphyxia by plugging of the air passages; the cases of drowning occurred at Aden and Nasirabad respectively, and were accidental; the case of plugging of air passages happened at Deo-

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lalee; the man was found dead in his bed, the trachea and larynx being filled with pieces of meat and potatoes.

The admissions for local injuries amounted to 1,196, and the deaths to 7, being in the rates of 107·0 and ·63 per 1,000; the difference in admission rate with the previous year and with the average rate is small in either case; the death rate is only half that of the foregoing year.

The admissions were due to various causes, but chiefly to contusions, sprains, and wounds. The deaths resulted from gunshot wounds in 5 instances, and from fracture of the spine and rupture of the spleen in one respectively. Of the deaths from gunshot three were *suicidal*; one occurred at Belgaum, the man shooting himself through the chest while in a state of intoxication. At Quetta a man shot himself through the head; it is stated that no motive could be discovered for the deed except one might arise from the fact that he was unwillingly transferred to his regiment; in the third case, occurring in the same manner and place, no motive could be assigned. The following were accidental: at Mhow a man shot a comrade; at Quetta a man, while marking at the butts, was killed by a ricochet bullet; the case of fracture of the spine occurred at Belgaum, and is supposed to have happened to the man while he was in a state of intoxication; the death from rupture of the spleen occurred at Quetta, the man was found lying on the ground in a collapsed condition, but said he had received no injury, and could not account for this sudden attack; the post-mortem examination showed a rupture 4 inches long on the anterior surface of the organ. One man on the march to Quetta attempted to commit suicide by cutting his throat; he is said to have been insane at the time.

Surgical Operations.—The following operations were performed with satisfactory results: amputation of the thigh at lower third on account of compound fracture; one of the leg for gunshot wound; amputation of thumb two cases, one for compound fracture and the other for gunshot wound; amputation of fingers, two, for compound fracture; and amputation of toes, two, for Sind ulcer and deformity of foot; excision of the testicle on account of malposition; amputation of the penis on account of cancer; operation for pterygium; aspiration of chest for hydrothorax; fistula in ano; and Holt's operation for stricture. A case of operation for abscess of the liver had a fatal result.

Invaliding.—The number of men invalided home during the year was 421, and of men finally discharged as unfit for further service 117, being in the annual ratios of 37·64, and 10·46 per 1,000 of strength. In comparison with the corresponding rates for the preceding year a slight increase, 2·53 per 1,000, is observed in the rate of men sent home, but a decrease of 4·15 in that of men discharged. Compared, however, with decennial average rates a decrease has occurred in both rates, being 11·75 and 5·77 per 1,000 respectively. The causes of invaliding home were principally as follows: fevers 38 cases, rheumatism 16, secondary syphilis 21, tubercular diseases 25, nervous affections 28, diseases of the circulatory system 79, including 41 cases of palpitation; digestive system 51, including 28 of hepatic affections; debility 86, and injuries 16. The chief causes of final discharge were tubercular diseases, diseases of the circulatory system, debility, diseases of the respiratory and digestive systems and injuries.

Abstracts No. XXXVII. gives a table, taken from the report of the Principal Medical Officer, which shows the comparative mortality and invaliding in the three grades of commissioned officers, non-commissioned officers, and privates for the year under report, and for the 10 previous years. It will be seen that in the three classes the highest rate of mortality occurred in the non-commissioned officers, and the highest rate of invaliding in the officers. Compared with the return for the previous year a decrease in the rate of mortality has taken place in all three classes; but, on the contrary, there is an increase in all in the rate of invaliding.

Officers.—The average annual strength was 339, the attacks of illness numbered 262, the deaths 2, and 21 officers were invalided; the annual ratios per 1,000 were therefore 772·9, 5·90, and 61·95 respectively. Compared with the corresponding rates for the preceding year an increase is observed in the rate of sickness of 103·0 per 1,000, and one of 12·93 per 1,000 in that of invaliding, but a decrease of 13·71 per 1,000 has occurred in that of mortality. Enteric fever caused one attack of illness, other continued fevers 31 attacks, and paroxysmal fevers 49, of which 3 were remittent fever. Cholera attacked one officer; the case proved fatal. There were 14 cases of hepatic affections, but no deaths; peritonitis caused three attacks of illness and one death, diarrhœa and dysentery caused 13 attacks. Of the remaining diseases none showed great prevalence or call for special mention. The causes of invaliding were fevers 4 cases, deafness, dyspepsia, diarrhœa, hepatitis, debility, and wounds, 2 cases each, and rheumatism, phthisis pulmonalis, mania, pneumonia, and dysentery, one case respectively. *Bombay.*

Women.—In an average annual strength of 638 there were 654 admissions and 16 deaths. Deducting 179 cases of childbirth, the admissions for sickness were 475, the annual rates per 1,000 being 744·5, which is less than in the previous year by 55·8. The rate of mortality, however, 25·08 per 1,000, shows a slight increase. Small-pox caused 2 admissions, and enteric fever 2 also, of which one was fatal; other continued fevers caused 16 admissions and one death, and paroxysmal fevers 71 admissions, including 3 cases of remittent fever, one of which was fatal. Three admissions and 2 deaths are shown for phthisis pulmonalis. Of the remaining diseases the following were the principal causes of admission: nervous affections 14 cases, including 1 of mania, dyspepsia 23, dysentery and diarrhœa 34, abortion 18, and debility 141 cases. In addition to those mentioned above, the deaths were due to childbirth in 2 cases, and to cholera, acute rheumatism, cancer, pneumonia, peritonitis, abscess, hæmorrhage, embolism, and debility, one case respectively.

Children.—The average annual strength is returned as 1,103, the number of admissions into hospital 578, and of deaths 50; the annual ratios per 1,000 are, therefore, 524·0 and 45·33 respectively, both being considerably lower than the corresponding rate in the previous year, the former by 219·2, and the latter by 15·67 per 1,000. Small-pox caused 4 admissions, measles 10, and scarlet fever 5; continued fevers show 49 attacks, and paroxysmal fevers 87, including 5 of remittent fever. Of the remaining diseases the principal causes of admission were debility 84 cases, teething 62, diarrhœa 53, conjunctivitis 51, and bronchitis 33. The causes of death were diarrhœa 7, convulsions and teething 6 each, debility 5, tabes mesenterica and bronchitis 4 each, premature birth 3, measles, remittent fever, croup, peritonitis, 2 cases each, and simple continued fever, ague, anæmia, spina bifida, epilepsy, laryngitis, and abscess one case respectively.

SANITARY CONDITIONS.—The Principal Medical Officer confines himself to remarks bearing on those stations in which improvements have been effected during the year, or in which certain sanitary reforms are being more loudly called for.

PRESIDENCY CIRCLE.—*Deolalee.*—All the Abyssinian huts were sold off, and the ground in the neighbourhood utilised for camping purpose in place of that between the blocks of barracks around which free perflation of air is now allowed. Nos. 31 and 33 blocks have been utilised as mess room and quarters for married families. A detached building near the hospital has been adapted as a hospital for sick officers. Four cases of cholera took place in camp in the month of April. "Vigorous steps were taken on the outbreak of the disease "both to stamp it out and remove the troops from all risk. Troops which "were under orders for immediate embarkation, and in which a case of cholera "occurred were kept under observation and another party of men substituted. "These measures were effectual and no more cases occurred."

At *Belgaum* the Medical Officer in charge reported that a poudrette manufactory in the vicinity of the station was found to be a nuisance and a probable source of danger to health; operations were suspended for a time, but the removal of the factory to another site is recommended.

POONA CIRCLE.—At *Kolhapur* a guard room and two new cells have been constructed; an additional reservoir for storing rain water has been made and some latrine improvements were carried out.

MHOW CIRCLE.—The Principal Medical Officer remarks that the stations in this circle have been so fully treated in previous reports, and the insanitary conditions so fully entered upon that it would be superfluous to go into the subject again. He calls attention, however, to certain recommendations of the sanitary commissioner on the station at Nasirabad, such as the removal of the regimental bazar in the European infantry lines, and the closing of certain

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patcheries; improvement of ventilation in barracks and hospital; the conversion of a patchery into a hospital for infectious cases, and other suggestions; the observations of the Medical Officer in charge of the station on the foregoing are also recorded.

Ahmedabad.—A new station hospital is being built and is in rapid progress.

Teethul has been abandoned as a sanitarium during the year, owing to the completion of the rail communications and the ready access now available to Mount Abu as well as Bombay.

SIND CIRCLE.—*Hyderabad.*—A new scheme has been sanctioned for draining the large marsh in the neighbourhood, which, combined with the regulation, by means of sluices, of the overflow of the Indus, will, it is hoped, lead to an improved sanitary condition of the station. The drainage of the barrack ablution rooms was found to be imperfect and offensive, and as temporary improvements failed to remedy the evil, a new open masonry drain was sanctioned; to the hospital ablution rooms, a similar drain has been constructed, and their enlargement has been completed. No ward for the treatment of infectious disease exists in the hospital; it is suggested that a building formerly used as a cook house might, at a small cost, be converted into one.

A block of the European infantry barracks has been allotted to the Native infantry; the Principal Medical Officer thinks this most unadvisable, considering the manners and customs of the natives, their frequent intercourse with the inhabitants of the neighbouring town, and the large number of followers usually with a native regiment.

QUETTAH DISTRICT.—The Principal Medical Officer remarks that this district has been transferred from the Bengal to the Bombay command during the official year, and gives a detailed account of it.

"Quetta, or Shalkot is in Shal, the most northerly district of Baluchistan. The district is a valley about 20 miles long by 5 broad, and almost completely surrounded by mountains, but opens on the south into the Dasht-i-bedoulat (a barren plain). A gap 4 miles wide runs on the north-west coast between Karaksar, the northern part of the Chihattan range, and a spur of the Takatu mountain jutting out on the southwards. On the west is the Mashalak range, through the northern end of which is the Ghazarband Pass which communicates with Peshin. The valley is fertile, studded with villages and well watered. Orchards with most of the English fruits, and a variety of grain crops and vegetables are found in this district.

"Quetta is in latitude 30° 12′ north and 66° 55′ east longitude, with an altitude of about 5,514 feet above sea level; it is the third largest town in the Sarawan province of Baluchistan. The Bolan Pass, about 56 miles long, terminates at the Kharlaka Kotala, about 26 miles from Quetta. It is traversed by stream of the same name, which is much swollen after rain, but almost dry at other seasons. There are no large rivers or lakes. Many small streams and springs issue from the bases of the hills, and are utilised by means of subterranean aqueducts for irrigation of the fields in the valleys.

"The ordinary rainy months are March, April, July, and August. The rain is mostly concentrated on the hills, but little falling in the valleys; the rainfall recorded during the year was 7·25 inches. The climate is somewhat variable, May to August inclusive being very warm, and the winter months intensely cold. The daily variation of temperature during the year averaged 29° F., but sometimes amounting to as much as 40°. Frequent dust storms occur during the hot weather. The prevailing winds are west in summer (cooled by the surrounding hills) and north-east in winter. The prevailing diseases among the people are but little known.

"The fort is surrounded by a deep ditch and a wall 20 feet high. The enclosed area is about $\frac{1}{16}$ of a square mile.

"The garrison artillery barracks consist of six large rooms facing east. Each room has a capacity of 11,520 cubic feet, and is occupied by eight men, thus allowing 1,440 cubic feet per man. Ventilation is maintained by five windows and a door. These rooms are only used as dormitories.

"The infantry barracks consist of two long barrack rooms used as dormitories; one room has a capacity of 10,800 cubic feet, and is occupied by 10 men, the other a capacity of 4,800 cubic feet, and is at present occupied by five men.

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"There is one large ablution room fitted with basins and tubs, and two "small bath rooms at each end. There is also a swimming bath 40 feet wide "and 60 feet long, and 7 to 8 feet deep.

"There are four large day rooms 90 feet by 20 feet, walls 6 feet high, and "covered by a tent roof, capable of dining 60 men.

"A civil prison is situated near the guard-room, capable of holding 50 or 60 "prisoners.

"Excepting the guard-room and civil prison, all the buildings are constructed "of sun-dried bricks and mud, with flat mud roofs.

"Within the fort there are two wells, the water from which is used for "drinking by the natives, and for ablutionary purposes by the garrison "artillery. The drinking water is obtained from a covered-in well near the "general's quarters.

"About 600 yards from the fort is the cantonment, consisting of lines of "mud houses for one native cavalry and two native infantry regiments.

"The European barracks consist of 8 blocks, containing 32 rooms. Accommodation is provided for 24 men in each room, giving 930 cubic feet of "space per man. The station hospital consists of two parallel buildings; one, "intended originally for a native hospital, consists of two large wards surrounded by a verandah. Latrines, bath rooms, and ablution rooms are all "attached. The other building consists of 9 wards. The Station Hospital is "capable of accommodating 176 patients with a cubic space of 1,109 cubic "feet per man. There is a female hospital, about 200 yards from the Station "Hospital, containing 2 wards and 29 beds.

"No satisfactory analysis of the water has been made locally. Much improvement has recently taken place in the protection of the source of the "drinking water supply.

"The chief diseases are bronchitis, tonsillitis, pneumonia, and enteric fever. "The prevalence of enteric fever and its high mortality are both worthy of "note."

With regard to the rations issued in the command, the Principal Medical Officer remarks that "a privilege was granted to the military cantonment of "Nasirabad by Government resolution dated October 1883, in sanctioning the "issue of preserved or compressed vegetables when good potatoes were not "procurable during the rains from Bombay or Poona. The effect of this has "not been observed, but will be during the next rainy season.

"Complaints as to the quality of the bread have been made from Taragarh "and Asirgarh, where it readily becomes sour. Attempts have been made to "remedy the evil, but hitherto they have not been successful.

"Clothing and bedding, lighting and warming, &c. call for no fresh remarks. "A temporary recreation room was constructed at the Crater Point, Aden; it "meets a great want, but it is too small. However, as the building is only "temporary, pending the consideration of the authorities as to the advisability "of transferring the troops from the Crater to another site, it is needless to "make any recommendation in the matter."

XIII.—ON THE HEALTH OF THE TROOPS SERVING IN EGYPT

Sickness and Mortality.

Egypt.

The average annual strength of warrant officers, non-commissioned officers and men serving in the Army of Occupation in Egypt during the year 1883 is returned by the Principal Medical Officer, Surgeon-General J. Irvine, M.D., as 7,897.

The number of admissions was 8,995, of deaths 275, and of constantly sick 600·74, being in the annual ratios of 1139·0, 34·82, and 76·07 respectively. The annual admission and mortality rates are less than half those for the preceding year, with which, however, they are not fairly comparable, as the latter are calculated on the sickness and mortality of troops resident in the country for only a limited period of the year, during part of which time the campaign was in progress.

The average strength of the different arms of the service in the command during the year, with the rates of admission, mortality, invaliding, and constantly non-effective through sickness per 1,000 is shown in the following table :—

Arm of Service.	Average Strength.	Ratios per 1,000.			
		Admissions.	Deaths.	Invalided.	Constantly Sick.
Cavalry - -	611	1217·6	29·45	168·56	82·62
Artillery - -	657	1080·6	44·14	63·49	74·66
Engineers - -	248	806·4	28·22	72·58	51·08
Infantry - -	5,627	1180·3	30·77	66·11	73·86
Departmental Corps -	754	927·0	63·66	173·74	96·68
Total - -	7,897	1139·0	34·82	84·71	76·07

The highest admission rate, therefore, occurred in the cavalry, and the lowest in the Engineers, the rates of mortality, invaliding and constantly sick, were highest in the departmental corps.

The health statistics of the different corps composing each arm of the service as above will be found in Abstract XLII.

If the 139 deaths due to the epidemic of cholera be deducted, the ratio per 1,000 of ordinary mortality is 14·93; this is considerably higher than the death rate at other Mediterranean stations, and compared with the three presidencies of India (after making similar deductions for cholera, and taking the figures for the same year) we find that the rate of mortality in Egypt is greater than that of Bengal by 4·76, than that of Madras by 5·70, and that of Bombay by 536 per 1,000. As, however, there has been continuous improve-

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ment in the health of the troops during the year it may be confidently anticipated that the death rate in succeeding years (apart from that due to epidemic influences) will be much lower than that registered for the year under report.

Comparing the principal stations the Principal Medical Officer shows the relative healthiness of Cairo, Abbassiyeh, and the Alexandria command as regards the troops in the following figures:—

—	Ratios per 1,000.		
	Admissions.	Deaths.	Constantly Sick.
Cairo - - -	1068·3	19·25	65·17
Abbassiyeh - -	1046·9	19·72	63·08
Alexandria command -	1401·4	26·44	97·83

"If a correction be made for the sick treated at Ramleh, not belonging to " the troops stationed in the Alexandria command, but sent there for change " from Cairo and Abbassiyeh, the figures will stand thus,—1369·0, 24·65, and " 90·73. It will be seen, therefore, that the sick rate in the Alexandria command is 30 per cent. higher than at Cairo and Abbassiyeh, and if the more " important diseases be taken separately this holds good in all, excepting " only cholera and diseases of the eye.

"Alexandria possesses a milder climate than Cairo, and is popularly supposed to be more healthy in the summer months. As regards the troops " this is evidently not the case; but as this is the first complete year of " occupation, when various external influences may have been at work, we are " hardly in a position to assert with any degree of certainty what are the " causes which have produced this marked difference."

The principal causes which affected the health of the troops during the year were enteric and other continued fevers, cholera, dysentery, and diarrhœa, and venereal affections. The admissions and mortality from these, as well as all other classes and orders of diseases, are shown in Abstract XXXVIII.

General Diseases.—In the *febrile group* of diseases 1,816 admissions and 193 deaths are returned, being in the annual ratios of 230·0 and 24·44 per 1,000, a great reduction on the corresponding rates in the previous year. Eruptive fevers caused 29 admissions, 8 were cases of small-pox, of which two were fatal from sudden supervention of œdema of the glottis. The disease was no doubt contracted by the troops in the low quarters of Cairo, from which city it is said to be never entirely absent. The remaining cases of eruptive fever were due to measles in three instances, and dengue in 18. All the cases of the latter disease occurred at Port Said, in October and November, where it was epidemic among the civil population, and they were mild in character.

Enteric fever caused as many as 258 admissions and 50 deaths, including that of an invalid, being in the annual ratios of 32·7 and 6·33 per 1,000 respectively. The disease, which had been very prevalent after the campaign at the close of the previous year, caused in the month of January 104 admissions. The Principal Medical Officer remarks that from this number the admissions " fell to 24 in February, which figure was never exceeded subsequently, and " only once again reached in the month of July. This sudden decrease in the " number of cases held good at all the stations in the command. There is no " doubt that the large number of admissions in January was the result of " conditions connected with the recent campaign; this result being largely " contributed to by the existence of insanitary surroundings when as yet there " had not been sufficient time to improve them. A further decrease took plaec " in April, followed by a rise in May, June, and July, which is accounted for

Egypt.

" by the occurrence of an epidemic at Ramleh, but throughout the rest of the " year the admissions did not exceed 12 per month, this lower rate being due " to the great improvement in all matters pertaining to sanitation. There is " little doubt that to the number of cases returned as enteric fever should be " added some of those classed under the head of other continued fevers, which " were really mild cases of the former disease. On this supposition the prevalence of the disease would be greater than as shown, but the death rate " which at present stands at the rather high figure of 19 per cent. of admissions would be greatly reduced. The symptoms and course of the disease " were substantially the same as met with in England; relapses were not " common; the most noticeable feature met with post-mortem was the " frequent implication of the large intestine adjacent to the ileo-cæcal valve; " dysentery co-existed in some cases."

Other continued fevers caused 1,197 admissions and one death, that of an invalid; the rate of admission amounted to 151·6 per 1,000. It is pointed out that "as in the case of enteric fever a sudden fall took place in the " number of admissions from 243 in January to 98 in February, with a further " decrease in April to 74. The sudden drop in February is best explained on " the supposition that, of the large number of admissions in January, many " were really due to pythogenic causes, and therefore of an enteric character; " there was no alteration in temperature conditions to cause this decrease; " neither could it be due to the diminution of the number of troops in the " command, which was not sufficient to account for it." There was a rise again in June and July, which held good throughout the command, and was probably due to increased temperature; after this time the numbers fell off and only 17 cases were registered in December.

Paroxysmal fevers caused only 135 admissions, or 17·1 per 1,000, considerably less than the annual ratio in the previous year. As in the case of the diseases already mentioned, a sudden decrease occurred from 40 cases in January to 11 in February; during the remainder of the year there were very few admissions, except in October, when there was a slight rise. The majority of the cases were ague, and those of remittent fever were not of a severe type. In October 12 cases occurred in Kasr-en-Nil barracks, said to have been " due to malarial poison developed on the banks of the Nile as it " subsided, leaving wet, marshy ground exposed to the sun. Attention was " directed to the state of the ground, dry earth was spread over it, the " evolution of malaria was checked, and no further cases were reported."

Cholera.—The epidemic which visited Egypt during the year has been already described by Surgeon-General Irvine in his special report published in the Appendix to the last departmental volume; that it is therefore unnecessary to enter into the subject in detail.

The disease broke out in Damietta on the 22nd June, but except at that place made but little progress up to the 30th, when it showed itself higher up the river. On the 10th July the disease appeared at a town only 35 miles from Cairo, and immediately afterwards various towns over the delta came under the influence of the epidemic. On the 14th the disease showed itself at Ghizeh, a village only a mile from Cairo on the opposite bank, and on the next day it appeared in the low Arab quarter of Cairo itself. The disease smouldered for a few days, but on the 20th the cases became very numerous in the whole city; it was therefore deemed advisable to evacuate the Kasr-en-Nil barracks and send the troops to Suez, which was done; the Abdin barracks being also evacuated the next day. On the night of the 21st the first case of cholera among the troops occurred at Suez in a soldier of the Royal Highlanders; on the 23rd a case occurred at Kasr-en-Nil barracks, on the 24th two at Harem Hospital, Abassiyeh, and almost simultaneously three men and an officer in the Citadel Hospital. Troops were now moved off to various camps, Helouan, El-Warden, Mokattam heights, and Ismailia; the disease, however, showed itself in nearly every instance in camp after the movement of troops. At Alexandria sporadic cases of cholera had occurred among the civil population from the beginning of July, but no case occurred among the troops at Ramleh until the 3rd August, when the first case occurred in the hospital, from which date until the 23rd there were 14 cases. The disease lasted for varying periods in the different bodies of men and gradually disappeared, the last fatal case occurring at Geneffe on 26th August.

The total number of cases was 183 and of deaths 139, being in the annual ratios of 23·2 and 17·60 per 1,000 of strength. The per-centage of deaths to attacks was 75·95. Egypt.

The type of the disease was severe, but there was no unusual or special symptom noticed in this epidemic.

It is remarked that "the experience of this outbreak does not bear out the " assertion that those in attendance on cholera patients are not more liable " to contract the disease than others, as the men of the Army Hospital Corps " suffered out of all proportion to the other branches of the service. Out of " a strength of 102 men 16 were attacked and 13 died. Also of 80 regimental " orderlies employed as supernumerary attendants on the sick, 17 were attacked " and 8 died."

Of other diseases of the febrile group there were 14 attacks, 11 being for erysipelas, and 2 for diphtheria; there was no death.

Under the *constitutional group* of diseases there are 237 admissions, or 30 per 1,000, for rheumatism; 70 of the cases were of the acute form, but no death is recorded.

1,501 admissions for primary syphilis, and 157 for the secondary form are returned, being in the ratios of 190·1 and 19·9 per thousand respectively, both higher than the corresponding annual ratios reported in 1882. Including the admission rates for gonorrhœa and its sequelæ, the total venereal rate amounted to 285·9 per 1·000, and the average number constantly sick was 172·15, the rate of constant inefficiency from this cause being 21·81 per 1,000. The cases of primary syphilis were chiefly those of the soft sore, and as a rule of a mild type. It is stated that there has been a certain amount of " supervision exercised over prostitution in Cairo and Alexandria, but in towns " such as these and under circumstances of temporary occupation it has been " a difficult matter, and the difficulty has been increased by the fact that " foreign prostitutes are exempt from any other bu tconsular laws." Tubercular affections show 68 admissions, out of which 48 were cases of phthisis pulmonalis; of these 13 died, 7 in the command, and 6 invalids after leaving the country.

LOCAL DISEASES.—The admissions for diseases of the nervous system numbered 135, and the deaths 13, being in the ratios of 17·1 and 1·64 per 1,000 respectively, greatly lower than the corresponding annual rates in 1882, which were increased by the prevalence of sunstroke during the campaign. Still there were 26 cases of sunstroke admitted, of which 4 terminated fatally, and in addition 4 fatal cases occurred out of hospital. Among the troops quartered in barracks at the citadel Abbassiyeh and Alexandria there were 24 cases and 4 deaths; among those under canvas at Ismailia and El-Warden there were 7 cases and 4 deaths, whilst no cases occurred among the troops quartered at Helouan, Mokattam, or Geneffe, although the time of year and surrounding circumstances appear to have been the same. Three cases of meningitis and two of apoplexy are returned; they were all fatal. 16 admissions are shown for mental affections. The total number of admissions for diseases of the eye were 278, being in a ratio of 35·2 per 1,000.

This small ratio is satisfactory, especially when it is considered that 79 per cent. of the admissions were for simple conjunctivitis; there were only 6 cases of purulent ophthalmia, and in no case did a man lose his sight. Diseases of the circulatory system caused 157 admissions and 2 deaths, the rate of prevalence being 19·9 per 1,000, 113 of the cases were due to palpitation; one death was due to hypertrophy of the heart, and the other, to valve disease in an invalid after leaving the command. Respiratory affections were at the rate of 52·9 per 1,000, and there were 10 deaths, or 1·27 per 1,000. Bronchitis and pneumonia caused the greater part of the admissions; of the latter disease there were 117 cases and 7 deaths. The frequency of this disease is explained by the considerable variation in the daily temperature and the consequent liability to chill. The remaining deaths were due to emphysema and pneumonic phthisis. Diseases of the digestive system caused 1,609 admissions and 24 deaths, being in the ratios of 203·7 and 3·04 per 1,000, both being greatly less than the annual ratios shown for the year 1882, which were increased by diseases incident to the campaign, such as dysentery and diarrhœa. It was noticed that after the troops had settled down in occupation some time, the admissions fell rapidly and kept moderately low until the temperature increased, *Egypt.*

when these diseases also increased in frequency, after which a rapid decline again took place. Diarrhœa caused 486 admissions, dysentery 257, and dyspepsia 226; there were 10 deaths from dysentery. Affections of the liver were not numerous, one death was caused by hepatitis, one by acute atrophy of the liver, and 6 by abscess of the liver; the remaining deaths were caused by peritonitis two cases, and by typhlitis, diarrhœa, and enteritis one case each. Apart from gonorrhœa and its sequelæ which were at the rate of 75·9 per 1,000, there were only 75 cases of urinary disease. It is remarked that "only one "case of hæmaturia renalis came under treatment; this is satisfactory evidence, "as far as it goes, of the purity of the water supplied to the troops, as the "disease is endemic in the country, and very common among the native popu-"lation." The rates of admission for the remaining orders of local diseases were not generally high, cutaneous affections being alone somewhat numerous, but not so considering the nature of the climate; the rate of prevalence was 54·2 per 1,000.

Debility caused 393 admissions, or 49·8 per 1,000, and one death; the admission rate is considerably lower than that for the previous year.

POISONS.—22 admissions are returned, all resulting from the abuse of alcohol; 12 of the cases were delirium tremens, and one death is returned as alcoholic poisoning.

Injuries.—Under general injuries, one admission and 6 deaths are returned; the former was a case of multiple injury, fatal, in a man at Abbassiyeh, who fell from a barrack window while in a state of somnambulism. The remaining 5 deaths were due to drowning.

Local injuries caused 518 admissions and 10 deaths, being in the respective ratios of 65·6 and 1·27 per 1,000. Three deaths arose from fracture, two occurred at Abbassiyeh from falling out of window, in one case the ribs on each side being broken and the lung ruptured; and in the other, fracture of the skull; the third case was a fracture of the base of the skull from a fall from horseback. Four deaths occurred from gunshot wound, 3 at Ramleh, and one at Abbassiyeh: of these one was *homicidal*; a man was shot through the head by a comrade; a verdict of manslaughter was returned. The remaining three cases were *suicides*, the verdicts "temporary insanity." Two of the cases were distinctly traceable to drink; they were all gunshot wounds of the head. Two other cases of *suicide* (making 5 in all) occurred from cut throat in Cairo.

One other death from injury occurred in the case of a man who was found at the bottom of a cliff in Ramleh, having sustained dislocation of the spine in the cervical region.

An amputation of both legs occurred: a gunner had both legs crushed by a passing train, and it was found necessary to amputate the right limb just below the knee, and the left through the knee joint. The patient did well and made a good recovery. No other surgical operation is recorded.

Invaliding.—The number of invalids sent home was 669, and of men finally discharged 176, being in the annual ratios of 84·71 and 22·29 per 1,000 respectively. The former is considerably lower than the recorded annual rate for 1882, with which, however, it is hardly comparable, owing to the campaign in that year, and the necessity that existed of evacuating the hospitals, very many men being sent home as invalids, who at other times would have remained under treatment and recovered in the country. The diseases which were the principal causes of invaliding were enteric fever 153 cases, debility 144, simple continued fever 44, dysentery 33, palpitation 23, and valve disease of the heart 20. Of the 44 cases which required invaliding after simple continued fever, a considerable number were undoubtedly cases of enteric fever. The chief disabilities causing final discharge were phthisis pulmonalis, ophthalmic affections, deafness, diseases of the circulatory system, debility, and injuries received in action.

Officers.—The average annual strength was 283, the attacks of illness 249, the deaths 8, and the number of officers invalided 54, being in the annual ratios of 879·8, 28·27, and 190·81 per 1,090 respectively. Out of the total number of attacks of illness the chief diseases were simple continued fever and febricula 50 cases, enteric fever 27 cases, dysentery and diarrhœa 15 cases each. There were 4 cases of cholera, all of which proved fatal. In addition to these deaths 4 others occurred, 3 from enteric fever, and one from compression of the brain caused by a fall from a horse. The causes of invaliding were fevers, principally enteric, debility, dysentery, hepatic diseases, and phthisis pulmonalis. *Egypt.*

Sanitary Conditions.—The Principal Medical Officer reports that "during " the year, the first complete year of occupation by British troops, the sani- " tary condition of barracks and hospitals has been greatly improved in every " respect. The barrack accommodation has been on the whole satisfactory, " and the amount of space sufficient. During the summer the average space " per man in barracks was 1,150 cubic feet and 60 feet superficial, and in the " winter 980 cubic feet and 60 feet superficial.

" The hospitals at Cairo, Abbassiyeh, and Ramleh are in excellent order, and " in none was there overcrowding. The cleanliness of the buildings both of " barracks and hospitals, and of their vicinities, have been carefully attended " to.

" With regard to the water supply, the troops at Cairo and Abbassiyeh are " supplied with Nile water through the medium of the waterworks, which furnish " water to the population generally. The water is pumped from the river into " reservoirs situated between the town and Abbassiyeh, where it is filtered " through beds of gravel and sand; it is then distributed through cast-iron " pipes. There is generally a large amount of solid material in suspension " (Nile mud), but after refiltration through dripstone chatties, it is both " agreeable to the taste and wholesome. The water has been analysed at " various times, and has not been found to contain any deleterious substances. " During the epidemic of cholera all drinking water was boiled, as far as " practicable, before being filtered.

" The water supplied at Alexandria and Ramleh is taken from the Mahmou- " diyeh Canal. It is filtered before distribution, and again at the Ramleh " Hospital. Earthenware filters are supplied at the barracks as at Cairo. " Owing to the smaller volume of water, and its slower movement in the " canal, pollution is more likely to occur here than in the river itself.

" The dry earth system of conservancy has been in use throughout the com- " mand in barracks, hospitals, and prisons; native labour has been employed in " the removal of the excreta, and the plan, with careful supervision, has worked " well. The Egyptian closets have been sealed up and cesspits emptied in " many cases.

" At the citadel Cairo there are large and excellent tanks for bathing pur- " poses; at Kasr-en-Nil the men bathe in the river, and at Ramleh and Alex- " andria they are on the sea shore.

" The clothing of grey serge has been fairly suitable for the summer months; " in the winter the same clothing is worn as at home. The rations have been " good and the cooking arrangements satisfactory. The sanitary improve- " ments in barracks and hospitals have been numerous and extensive, accom- " modation and ventilation have been improved, means for variety in cooking " extended, facilities for ablution increased, and conservancy thoroughly " supervised. These measures have undoubtedly conduced to the improved " state of health which now exists among the troops."

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XIV.—ON THE HEALTH OF THE TROOPS ON BOARD SHIP.

The troops embarked during the year, as shown in the returns received in the Army Medical Department, were :—

I.	Troops proceeding on service abroad	16,879
II.	Troops returning from abroad	19,453
III.	Troops proceeding from one station abroad to another	8,330
IV.	Invalids returning to England	3,008

I.—TROOPS PROCEEDING ON FOREIGN SERVICE.

The total number of warrant officers, non-commissioned officers, and men embarked for foreign service during the year was 16,879, the equivalent annual strength being 1,389. The admissions into hospital amounted to 1,317, and there were 7 deaths, giving the respective annual ratios of 948·2 and 5·04 per 1,000. Compared with the corresponding rates for the previous year, the admission rate shows an increase of 39·2 and the death rate one of 2·60 per 1,000, and in comparison with the average of similar rates for the preceding 10 years, the rate of admission is increased by 313·5 and that of mortality by ·68 per 1,000.

The admissions and deaths in the various classes and orders of diseases are shown in Abstract XXXIX.

GENERAL DISEASES.—The *febrile group* caused 40 admissions, or at the rate of 28·8 per 1,000, a decrease of 12·1 as compared with the rate in the preceding year. Eruptive fevers were represented by three cases of measles, which occurred on the s.s. "Khedive" on her voyage to Ceylon in January. Enteric fever was the cause of six admissions and one death. Two cases, one fatal, occurred in H.M.S. "Jumna," on her voyage to Bombay in May and June, and another suspected case was landed on arrival; all three men belonged to the same draft, and came from Castlebar in Ireland, where the disease had existed before the embarkation. In the same ship there was another case on her voyage in September and October. In H.M.S. "Crocodile," *en route* to India in January, a case occurred shortly after embarkation. There were also single cases in H.M.S. "Himalaya" in January, and the s.s. "Poonah" in November, the ships proceeding to Hong Kong and Egypt respectively. Other continued fevers caused 21 admissions, and there were seven cases of ague.

The *constitutional group* of diseases caused 396 admissions, the rate of prevalence, 285·1 per 1,000. being higher than in 1882 by 61·0. There were 31 admissions for rheumatism, including one fatal case of the acute form. Primary and secondary syphilis caused 323 and 35 admissions respectively, being at the rates of 232·6 and 25·2 per 1,000, showing an increase on the corresponding rates in the former year. The prevalence of venereal diseases was noticed in Indian troopships on some of their voyages, and also in H.M.S. "Himalaya," when conveying the 2nd Battalion York and Lancaster Regiment to Bermuda.

LOCAL DISEASES.—The admissions for diseases of the nervous system numbered 14, of which three are returned as sunstroke, one case, which occurred in a patient suffering from dysentery, proving fatal. Mental affections caused two admissions, one respectively from mania and dementia. Ophthalmic and aural affections occurred in 19 and 10 cases respectively, mostly of a trivial character.

Diseases of the circulatory system caused only three admissions, of which one was returned as endocarditis; the other two were slight affections.

Respiratory diseases were the cause of 71 admissions, the most part being due to bronchitis; there were, however, 21 cases of pneumonia and two of pleurisy, and one death occurred from the former disease. Disorders of the

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digestive system show 150 admissions, or at the rate of 108·0 per 1,000, a considerable increase on the rate in the previous year. Tonsillitis caused more than half the admissions; dyspepsia was rather prevalent, and various other diseases caused a small number of admissions; one fatal case occurred from obstruction of the bowels. Gonorrhœa and its sequelæ caused an admission rate of 179·3 per 1,000, which is less than the rate in the foregoing year. Other urinary affections were the cause of 25 attacks of illness. Two hundred admissions are recorded for cutaneous diseases, of which 118 were for scabies the remainder being, for various causes, principally ulcers. One admission is returned for delirium tremens. Two deaths are recorded from drowning; one occurred in the voyage of H.M.S. "Malabar" to Bombay in October, and the other in Tarifa Bay, from H.M.S. "Euphrates" *en route* to India in December. Local injuries caused 88 admissions, chiefly contusions, wounds, and sprains, but the rate of prevalence is lower than in 1882.

The *sanitary condition* of the troopships and transports has been generally reported as satisfactory.

II.—TROOPS RETURNING HOME FROM ABROAD.

The number of effective warrant officers, non-commissioned officers, and men who embarked for England was 19,453, the equivalent annual strength being 1,157. The number of admissions into hospital was 1,211, and of deaths 15, giving the annual ratios of 1046·7 and 12·96 per 1,000 respectively, being higher than those in the preceding year by 253·8 and 6·47 per 1,000, and slightly higher than the average of similar rates for the preceding 10 years.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract XXXIX.

GENERAL DISEASES.—The *febrile group* shows 266 admissions and six deaths, being in the annual ratios of 229·9 and 5·18 per 1,000 respectively, considerably higher than the similar rates in the preceding year. Among eruptive fevers occurred one case of small-pox and two of measles; the former was a severe case, and happened on the s.s. "Calabria," *en route* from Alexandria to England in March. Continued fevers caused 60 admissions, of which two were for enteric fever, which occurred on H.M.S. "Tamar," on her voyage home from the West Indies, both recovered; the remainder were cases of simple continued fever and febricula; one death occurred on H.M.S. "Crocodile," from fever of a malarious character, while returning from India in May. Paroxysmal fevers show 194 admissions, 11 being for remittent fever and the remainder from ague; the ratio per 1,000 is 167·7, which is a considerable increase on the rate of the foregoing year. Two deaths are recorded from remittent fever, one in H.M.S. "Crocodile" on the voyage above mentioned, and one in H.M.S. "Serapis," *en route* from India in December. Five admissions and three deaths are returned from cholera. Two cases occurred in the s.s. "Armenia" from India in May, one of which was quickly fatal, the other so far recovered that the man was landed at Portsmouth, but he was in a very debilitated condition, and sank from exhaustion shortly after arrival. The remainder of the cases, three, with two deaths, occurred on the s.s. "Clan Grant" from India, in May. In this instance two of the cases occurred shortly after leaving Bombay, the third commencing to be ill on the sixth day after departing, while in the instance of the s.s. "Armenia" the first case occurred seven days after sailing; in both instances it is stated that the troops had come from Deolali where the disease existed in the district, and a few Europeans had been attacked.

The *constitutional group* of diseases caused 238 admissions or at the rate of 205·7 per 1,000, which is considerably higher than that in the previous year; a good deal of the increase was due to syphilis. The prevalence of venereal disease is noticed in some of the reports from the Indian troopships; but the rate of prevalence is generally less than among troops proceeding abroad from home. The total admission rate for syphilis was 172·9 per 1,000. The remaining admissions in this group were due chiefly to 28 attacks of rheumatic affections and seven of tubercular diseases.

LOCAL DISEASES.—Eleven admissions are returned for diseases of the nervous system, including four for paralysis, one for mania, and one fatal for

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meningitis. Ophthalmic affections necessitated 21 admissions; the cases were mostly mild. Circulatory diseases occurred only in three instances, one of which was valve disease, the other two being cases of palpitation. 110 admissions and one death are shown for respiratory affections; of the cases 85 were bronchitis, 16 pneumonia, and 7 pleurisy; the death was caused by pneumonia. Digestive affections caused 145 admissions, 125·3 per 1,000, and 2 deaths; the rate of prevalence is less than in the former year. The principal diseases in order of frequency were diarrhœa, tonsillitis, dysentery, and dyspepsia. The deaths were due to dysentery in one case and in the other to abdominal hydatid tumour. Urinary affections were the cause of 162 admissions, of which all but 10 were due to gonorrhœa, the admission rate for which was 131·3 per 1,000. The remaining orders of local diseases caused comparatively few admissions, and call for no special mention.

Delirium tremens caused four admissions and alcohol one admission. Two deaths occurred from delirium tremens and two from alcoholic poisoning.

One death is returned from drowning, a man fell overboard from H.M.S. "Crocodile" *en route* from India in May. Local injuries caused 72 admissions, of which contusions, wounds, and sprains were the chief causes.

Sanitary conditions.—Speaking generally, these are reported as satisfactory. In one instance attention was called to want of sufficient accommodation for women and children.

III.—TROOPS PROCEEDING FROM ONE STATION ABROAD TO ANOTHER.

The number of warrant officers, non-commissioned officers, and men who proceeded from one station abroad to another was 8,330, giving the equivalent annual strength of 243. The admissions numbered 284, and there was one death. The annual ratio of admission was 1,168·7 and of mortality 4·11 per 1,000. Compared with the preceding year these rates show a considerable increase, but in comparison with the average rates of the preceding decennial period, while there is a marked increase in the ratio of admission there is a slight decrease in that of mortality.

The admissions and deaths in the different classes and orders of diseases are shown in Abstract XXXIX.

GENERAL DISEASES.—In the *febrile group* of diseases were returned 53 admissions, being in the annual rate of 218·1 per 1,000, which is more than twice the rate in the previous year. Eruptive fevers caused 27 admissions, of which 18 were for measles and 9 for scarlet fever. Of the cases of measles, 8 occurred on H.M.S. "Tyne," *en route* from West Africa to Jamaica in April; 8 more on her voyage from Barbadoes to West Africa in May and June, and one case between Belize and Honduras in May. The remaining case occurred in H.M.S. "Tamar." The cases of scarlet fever occurred in H.M.S. "Tyne" in September and October, chiefly between St. Helena and Cape Town, where they were landed, other cases occurring afterwards on the voyage to Mauritius. The remaining admissions for fevers were 14 of continued fever and 11 for ague.

The *constitutional group* of diseases caused only 65 admissions, of which 44 were due to syphilis, 17 to rheumatism, and two to tubercular disease. One death occurred from phthisis pulmonalis. The rate of prevalence of syphilis, as well as that of all forms of venereal diseases, is higher than in the preceding year.

LOCAL DISEASES.—Diseases of the nervous system show only three admissions, two being for paralysis, and one for epilepsy. Circulatory affections likewise show three admissions, all for palpitation. Respiratory diseases, 14 cases, include 3 of pneumonia and 2 of pleurisy. Digestive affections caused 32 admissions, 15 being for tonsillitis, no other cause being particularly prevalent. 44 admissions were the result of gonorrhœa; the admission rate was considerably higher than in 1882. The remaining orders of local diseases caused very few admissions.

Nine admissions are recorded for debility, three for delirium tremens, and 21 for injuries, none of which call for any comment.

It is reported that on the voyage of H.M.S. "Tyne" from Jamaica to Barbados in March, an officer unaccountably disappeared. It is supposed that

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he fell overboard, having fallen asleep when sitting on the gunwale. There was no reason to suspect suicide.

The *sanitary condition* of the vessels employed in the transport of the troops is reported to have been generally satisfactory. In one instance overcrowding in the case of women and children is mentioned, but no evil appears to have resulted.

IV.—INVALIDS RETURNING TO ENGLAND.

The number of invalids embarked for England from foreign stations during the year was 3,008, among whom 23 deaths occurred at sea. These are accounted for in the tables showing the sickness and mortality of the Commands from which the men were invalided. Compared with the previous year a great decrease in the number of invalids is observed, but it must be borne in mind the number was increased in that year by men serving in the Egyptian campaign being sent home who in times of peace would have been treated in the country. However, in comparison with the year 1881, the number invalided in the year under report shows a marked decrease.

ABSTRACT No. 1.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into serving in the UNITED KINGDOM during the Year 1883, with the Ratios

Orders.	Average Strength in Annual Returns, 81,677. †Average Strength, including Men detached, 85,960. Diseases.	Admissions into Hospital.	Died.			Invalids Discharged the Service.	Average Number constantly Sick.
			With the Regiment.	Absent from the Regiment.	Total.		
	I.—General Diseases.						
	Febrile Group.						
	Eruptive Fevers { Small-pox	6	—	—	—	—	·45
	Eruptive Fevers { Other	407	3	—	3	—	19·23
	Continued „ { Enteric	105	21	—	21	—	14·63
	Continued „ { Other	1,000	1	—	1	—	29·16
	Yellow Fever	—	—	—	—	—	—
	Paroxysmal Fevers	704	—	—	—	3	25·14
	Cholera	1	1	—	1	—	·02
	Other diseases	542	10	—	10	2	22·98
	Total	2,765	36	—	36	5	111·61
	Constitutional Group.						
	Rheumatism	3,153	5	1	6	98	205·38
	Primary Syphilis	9,511	—	—	—	—	755·16
	Secondary „	2,330	—	—	—	54	193·00
	Tubercular Diseases	697	137	11	148	298	104·70
	Scurvy and Purpura	16	—	—	—	—	1·11
	Other diseases	91	6	—	6	14	8·63
	Total	15,798	148	12	160	464	1267·98
	II.—Local Diseases.						
	Diseases of the—						
1	Nervous System	911	36	—	36	235	101·91
2	Eye	1,252	—	—	—	82	74·86
3	Ear	427	—	—	—	32	28·62
4	Nose	52	—	—	—	2	2·54
5	Circulatory System	985	45	3	48	353	104·19
6	Absorbent „	963	1	—	1	7	84·72
7	Ductless Glands	7	—	—	—	1	·74
8	Respiratory System	5,158	105	9	114	75	269·55
9	Digestive „	8,930	39	1	40	167	300·52
10	Urinary System { Gonorrhœa	8,573	—	—	—	—	513·52
	Urinary System { Sequelæ of Gonorr.	813	—	—	—	1	52·32
	Urinary System { Other diseases	1,082	7	2	9	44	49·58
11	Generative System	881	—	—	—	10	44·87
12	Organs of Locomotion	528	8	—	8	97	51·54
13	Cellular Tissue	1,999	—	—	—	12	95·93
14	Cutaneous System	8,358	—	—	—	25	309·96
	III.—*Debility*	860	—	2	2	149	67·83
	IV.—*Poisons*	171	4	—	4	—	5·03
	V.—*Injuries.*						
1	General	6	40	5	45	—	1·12
2	Local	8,387	35	1	36	74	337·03
3	In action	19	—	—	—	12	1·88
	No appreciable disease	215	—	—	—	—	7·97
	Cause unknown (refers to deaths only).	—	—	1	1	—	—
	General total	69,140	504	36	540	1,847	3885·82

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

† Ratios of deaths and invalids calculated on this strength.

Hospital, Deaths, Numbers Invalided and Constantly Sick among the Troops per 1,000 of the Strength and the Average Ratios for 10 Years.*

Ratio per 1,000.				Ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
·1	—	—	·01	·1	·01	—	·01
5·0	·04	—	·23	5·7	·07	—	·29
1·3	·24	—	·18	1·4	·27	—	·15
12·2	·01	—	·36	14·4	·05	—	·45
—	—	—	—	—	—	—	—
8·6	—	·04	·31	14·9	·02	·04	·49
—	·01	—	—	—	—	—	—
6·6	·12	·02	·28	8·7	·07	—	·32
33·8	·42	·06	1·37	45·2	·49	·04	1·71
38·6	·07	1·14	2·51	40·8	·07	1·39	2·41
116·5	—	—	9·25	91·0	—	—	6·89
28·5	—	·63	2·36	29·5	·03	·61	2·26
8·5	1·72	3·47	1·28	10·5	2·24	4·14	1·40
·2	—	—	·01	·2	—	—	·02
1·1	·07	·16	·11	1·5	·09	·15	·13
193·4	1·86	5·40	15·52	173·5	2·44	6·29	13·11
11·2	·42	2·73	1·25	12·4	·47	2·66	1·18
15·3	—	·95	·92	14·5	—	·80	·79
5·2	—	·37	·35	5·7	—	·65	·37
·6	—	·02	·03	·5	—	·01	·02
12·1	·56	4·11	1·27	14·9	·75	4·51	1·34
11·8	·01	·08	1·04	12·6	·01	·04	1·03
·1	—	·01	·01	·1	—	·02	—
63·2	1·33	·87	3·30	77·3	1·40	1·29	3·87
109·3	·47	1·94	3·68	109·9	·51	2·09	3·81
105·0	—	—	6·29	98·0	—	—	5·47
10·0	—	·01	·64	11·4	—	·08	·73
13·2	·10	·51	·61	12·1	·18	·44	·59
10·8	—	·12	·55	11·1	—	·19	·57
6·5	·09	1·13	·63	6·5	·05	1·23	·56
24·5	—	·14	1·17	23·0	·01	·08	1·02
102·3	—	·29	3·79	113·8	—	·36	4·30
10·5	·02	1·73	·83	10·8	·01	2·17	·79
2·1	·05	—	·06	2·1	·12	—	·06
·1	·52	—	·01	·1	·42	·01	·02
102·7	·42	·86	4·13	106·5	·30	·86	4·28
·2	—	·14	·02	—	—	·03	—
2·6	—	—	·10	3·3	—	—	·10
—	·01	—	—	—	·03	—	—
846·5	6·28	21·48	47·57	865·3	7·19	23·85	45·72

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to 1883 will be given in the Report for 1884 those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT A.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the NORTHERN DISTRICT during the Year 1883, with the Ratios

Orders.	Average Strength, 8,486. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive Fevers { Small-pox	1	—	—	·04
	Eruptive Fevers { Other	29	2	—	1·34
	Continued „ { Enteric	8	1	—	1·20
	Continued „ { Other	150	—	—	2·28
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	72	—	—	1·48
	Cholera	—	—	—	—
	Other diseases	37	—	—	·73
	Total	297	3	—	7·07
	Constitutional Group.				
	Rheumatism	378	1	12	20·16
	Primary Syphilis	958	—	—	80·54
	Secondary „	260	—	16	22·29
	Tubercular Diseases	77	16	41	11·08
	Scurvy and Purpura	2	—	—	·09
	Other diseases	22	—	4	2·43
	Total	1,697	17	73	136·59
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System	101	5	26	9·82
2	Eye	98	—	5	5·70
3	Ear	30	—	5	2·75
4	Nose	7	—	1	·59
5	Circulatory System	95	6	37	10·50
6	Absorbent „	131	—	3	11·87
7	Ductless Glands	—	—	—	—
8	Respiratory System	525	15	15	31·49
9	Digestive „	859	5	20	29·30
10	Urinary System { Gonorrhœa	1,124	—	—	63·29
	Urinary System { Sequelæ of Gonorrhœa	118	—	—	9·15
	Urinary System { Other diseases	131	2	8	7·78
11	Generative System	119	—	2	5·31
12	Organs of Locomotion	57	—	7	3·82
13	Cellular Tissue	274	—	1	11·73
14	Cutaneous System	1,059	—	3	39·32
	III.—*Debility*	96	—	14	6·67
	IV.—*Poisons*	27	1	—	·68
	V.—*Injuries.*				
1	General	1	4	—	·01
2	Local	989	4	12	34·93
3	In action	—	—	—	—
	No appreciable disease	25	—	—	·90
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	7,860	62	232	429·27

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

DEATHS, NUMBERS INVALIDED and **CONSTANTLY SICK** among the **TROOPS** stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000, from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
·1	—	—	—	—	—	—	—
3·4	·23	—	·16	2·7	—	—	·11
·9	·12	—	·14	·9	·21	—	·11
17·7	—	—	·27	12·7	·03	—	·29
—	—	—	—	—	—	—	—
8·5	—	—	·17	14·9	—	—	·51
—	—	—	—	—	—	—	—
4·4	—	—	·09	6·4	·03	—	·21
35·0	·35	—	·83	37·6	·27	—	1·23
44·6	·12	1·41	2·38	41·3	·09	1·55	2·38
112·9	—	—	9·49	117·2	—	—	9·16
30·6	—	1·89	2·63	35·6	·06	·87	2·57
9·1	1·88	4·83	1·30	12·6	3·14	4·04	1·74
·2	—	—	·01	·1	—	—	—
2·6	—	·47	·29	1·4	·06	·48	·21
200·0	2·00	8·60	16·10	208·2	8·35	6·94	16·06
11·9	·59	3·07	1·16	12·7	·48	2·84	1·10
11·6	—	·59	·67	12·1	—	·87	·55
3·5	—	·59	·32	3·4	—	·48	·18
·8	—	·12	·07	·4	—	—	·02
11·2	·71	4·36	1·24	12·5	·93	4·67	·94
15·4	—	·35	1·40	13·1	—	·09	1·08
—	—	—	—	—	—	—	—
61·9	1·77	1·77	3·71	78·2	1·97	1·59	3·73
101·2	·59	2·36	3·45	99·5	·42	2·84	3·23
132·5	—	—	7·46	121·8	—	—	6.38
13·9	—	—	1·08	16·6	—	—	1·02
15·4	·23	·94	·92	10·7	·27	·42	·53
14·0	—	·24	·62	11·5	—	·33	·56
6·7	—	·83	·45	6·3	·06	1·26	·49
32·3	—	·12	1·38	25·3	·03	·15	1·07
124·8	—	·35	4·63	137·3	—	·69	4·38
11·3	—	1·64	·79	10·3	·03	2·09	·61
3·2	·12	—	·08	2·1	·15	—	·05
·1	·47	—	—	·2	·48	·03	·01
116·6	·47	1·41	4·12	115·6	·42	1·26	4·27
—	—	—	—	—	—	—	—
2·9	—	—	·11	1·9	—	—	·07
—	—	—	—	—	·03	—	—
926·2	7·30	27·34	50·59	937·3	8·89	26·55	47·56

to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT B.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the EASTERN DISTRICT during the Year 1883, with the Ratios

Orders.	Average Strength, 4,192.				
	* Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive Fevers { Small-pox	—	—	—	—
	Eruptive Fevers { Other	56	—	—	1·43
	Continued „ { Enteric	3	2	—	·21
	Continued „ { Other	30	—	—	·50
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	28	—	—	·68
	Cholera	—	—	—	—
	Other diseases	30	1	—	1·43
	Total	147	3	—	4·25
	Constitutional Group.				
	Rheumatism	184	—	5	12·15
	Primary Syphilis	494	—	—	36·47
	Secondary „	103	—	1	10·31
	Tubercular Diseases	41	4	11	5·56
	Scurvy and Purpura	1	—	—	·01
	Other diseases	5	—	—	·54
	Total	828	4	17	65·04
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System	60	1	15	6·42
2	Eye	84	—	—	5·68
3	Ear	36	—	1	3·63
4	Nose	5	—	—	·50
5	Circulatory System	64	5	14	3·44
6	Absorbent „	59	—	—	4·90
7	Ductless Glands	—	—	—	—
8	Respiratory System	313	8	1	12·63
9	Digestive „	625	3	6	17·20
10	Urinary System { Gonorrhœa	495	—	—	28·20
	Urinary System { Sequelæ of Gonorrhœa	43	—	—	3·02
	Urinary System { Other diseases	36	—	—	1·00
11	Generative System	46	—	—	2·47
12	Organs of Locomotion	20	1	6	2·78
13	Cellular Tissue	113	—	—	4·79
14	Cutaneous System	447	—	1	13·21
	III.—*Debility*	37	—	6	2·95
	IV.—*Poisons*	5	1	—	·08
	V.—*Injuries.*				
1	General	—	—	—	—
2	Local	442	1	6	17·69
3	In action	—	—	—	—
	No appreciable disease	5	—	—	·27
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	3,910	27	73	200·15

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in
per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	—	—	—	—
13·4	—	—	·34	6·3	—	—	·23
·7	·47	—	·05	·8	·12	—	·07
7·1	—	—	·12	13·8	—	—	·30
—	—	—	—	—	—	—	—
6·7	—	—	·16	24·2	—	·06	·70
—	—	—	—	—	—	—	—
7·1	·24	—	·34	6·5	·06	—	·36
35·0	·71	—	1·01	51·6	·18	·06	1·66
43·9	—	1·19	2·90	46·1	—	2·04	2·70
117·8	—	—	8·70	81·1	—	—	5·53
24·6	—	·24	2·46	24·6	—	·36	1·99
9·8	·96	2·62	1·33	12·1	2·34	5·03	1·27
·2	—	—	—	·1	—	·06	·01
1·2	—	—	·13	1·5	·18	·30	·34
197·5	·96	4·05	15·52	165·5	2·52	7·79	11·84
14·3	·24	3·58	1·53	12·6	·60	3·18	1·15
20·0	—	—	1·36	18·0	—	1·02	·85
8·6	—	·24	·87	4·7	—	·60	·30
1·2	—	—	·12	·4	—	—	·01
15·3	1·19	3·34	·82	15·5	·78	4·25	1·21
14·1	—	—	1·17	15·0	—	·06	1·01
—	—	—	—	—	—	—	—
74·7	1·91	·24	3·01	90·7	1·97	·90	4·18
149·1	·71	1·43	4·10	120·3	·48	2·94	3·92
118·1	—	—	6·73	102·0	—	—	4·67
10·2	—	—	·72	13·2	·06	—	·76
8·6	—	—	·24	9·2	·18	·24	·71
11·0	—	—	·59	15·2	—	·06	·83
4·8	·24	1·43	·66	6·0	—	1·19	·47
27·0	—	—	1·14	24·6	·06	·06	1·08
106·6	—	·24	3·15	111·2	—	·42	3·82
8·8	—	1·43	·70	15·2	—	4·49	1·00
1·2	·24	—	·02	3·8	—	—	·08
—	—	—	—	·1	·30	—	—
105·4	·24	1·43	4·22	106·9	·24	·84	4·16
—	—	—	—	—	—	—	—
1·2	—	—	·06	2·0	—	—	·10
—	—	—	—	—	—	—	—
932·7	6·44	17·41	47·74	903·7	7·37	28·10	43·81

to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c. &c.

ABSTRACT C.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the WESTERN DISTRICT during the Year 1883, with the Ratios

Orders.	Average Strength, 5,195.				
	Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive Fevers - Small-pox -	—	—	—	—
	Eruptive Fevers - Other -	16	—	—	·75
	Continued „ - Enteric -	4	—	—	·68
	Continued „ - Other -	68	—	—	2·12
	Yellow Fever - - - -	—	—	—	—
	Paroxysmal Fevers - - -	46	—	—	1·38
	Cholera - - - -	—	—	—	—
	Other diseases - - -	29	—	—	1·09
	Total - - -	163	—	—	6·02
	Constitutional Group.				
	Rheumatism - - - -	148	—	3	9·17
	Primary Syphilis - - -	546	—	—	44·17
	Secondary „ - - -	119	—	3	10·24
	Tubercular Diseases - - -	31	10	14	7·75
	Scurvy and Purpura - - -	—	—	—	—
	Other diseases - - -	1	—	—	·06
	Total - - -	845	10	20	71·39
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System - - -	61	2	13	6·29
2	Eye - - - - - -	79	—	11	5·10
3	Ear - - - - - -	22	—	7	1·85
4	Nose - - - - - -	5	—	—	·10
5	Circulatory System - - -	61	1	29	9·62
6	Absorbent „ - - -	49	—	—	4·95
7	Ductless Glands - - -	—	—	—	—
8	Respiratory System - - -	314	3	4	15·14
9	Digestive „ - - -	592	4	10	21·65
10	Urinary System - Gonorrhœa - - -	746	—	—	43·95
	Urinary System - Sequelæ of Gonorrhœa -	39	—	—	2·43
	Urinary System - Other diseases - -	65	—	3	3·19
11	Generative System - - -	63	—	—	2·72
12	Organs of Locomotion - -	52	1	4	4·53
13	Cellular Tissue - - -	130	—	—	5·71
14	Cutaneous System - - -	615	—	2	20·04
	III.—*Debility* - -	49	—	4	4·86
	IV.—*Poisons* - -	7	—	—	·17
	V.—*Injuries.*				
1	General - - - -	—	4	—	—
2	Local - - - - -	485	—	1	18·78
3	In action - - - -	1	—	1	·47
	No appreciable disease - -	16	—	—	·30
	Cause unknown (refers to deaths only)	—	—	—	—
	General total - -	4,459	25	109	249·26

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

Deaths, Numbers Invalided and **Constantly Sick** among the **Troops** stationed in per 1,000 of the Strength and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000, from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	·1	—	—	—
3·1	—	—	·14	6·3	—	—	·24
·8	—	—	·13	·9	·36	—	·08
13·1	—	—	·41	11·2	·10	—	·41
—	—	—	—	—	—	—	—
8·8	—	—	·27	12·5	—	—	·57
—	—	—	—	—	—	—	—
5·6	—	—	·21	5·3	—	—	·20
31·4	—	—	1·16	36·3	·47	—	1·50
28·5	—	·58	1·77	39·3	—	2·13	2·82
105·1	—	—	8·50	68·1	·05	—	5·85
22·9	—	·58	1·97	25·5	—	·57	2·27
6·0	1·93	2·69	1·49	11·2	2·07	4·41	1·70
—	—	—	—	·1	—	—	·01
·2	—	—	·01	·8	·16	·10	·07
162·7	1·93	3·85	13·74	145·0	2·28	7·21	12·72
11·7	·38	2·50	1·21	12·9	·41	2·85	1·18
15·2	—	2·12	·98	11·6	—	·83	·85
4·2	—	1·35	·36	5·0	—	·41	·33
1·0	—	—	·02	·5	—	—	·03
11·7	·19	5·58	1·85	13·5	1·19	3·11	1·30
9·4	—	—	·95	10·0	—	—	·79
—	—	—	—	—	—	—	—
60·5	·58	·77	2·91	59·8	·98	·88	3·27
114·0	·77	1·93	4·17	96·4	·36	2·70	3·62
143·6	—	—	8·46	118·5	—	—	6·90
7·5	—	—	·47	10·0	—	·21	·60
12·5	—	·58	·61	13·9	·16	·36	·75
12·1	—	—	·52	10·9	—	·16	·64
10·0	·19	·77	·87	6·4	—	·99	·61
25·0	—	—	1·10	17·8	—	—	·88
118·4	—	·38	3·86	99·5	—	·21	3·28
9·4	—	·77	·94	7·6	—	1·66	·95
1·3	—	—	·03	1·9	·16	—	·08
—	·77	—	—	·1	·21	—	·04
93·4	—	·19	3·62	82·3	·21	·83	3·66
·2	—	·19	·09	—	—	·05	·01
3·1	—	—	·06	3·2	—	—	·08
—	—	—	—	—	—	—	—
858·3	4·81	20·98	47·98	763·1	6·43	22·46	44·09

to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c. &c.

ABSTRACT D.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL,
the SOUTHERN DISTRICT during the Year 1883, with the Ratios

Orders.	Average Strength, 7,302. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive Fevers - Small-pox -	—	—	—	·07
	Eruptive Fevers - Other -	34	—	—	·93
	Continued „ - Enteric -	4	2	—	·37
	Continued „ - Other -	58	—	—	2·22
	Yellow Fever - - - -	—	—	—	—
	Paroxysmal Fevers - -	141	—	—	6·10
	Cholera - - - - -	—	1	—	—
	Other diseases - - -	14	—	—	·54
	Total - - -	251	3	—	10·23
	Constitutional Group.				
	Rheumatism - - - - -	265	—	11	20·06
	Primary Syphilis - - - -	606	—	—	48·15
	Secondary „ - - - -	149	—	5	12·37
	Tubercular Diseases - - -	71	18	27	9·71
	Scurvy and Purpura - -	—	—	—	—
	Other diseases - - -	4	—	1	·23
	Total - - -	1,095	18	44	90·52
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System - - - -	86	2	26	7·93
2	Eye - - - - - -	90	—	7	5·38
3	Ear - - - - - - -	40	—	2	1·97
4	Nose - - - - -	9	—	—	·29
5	Circulatory System - - -	115	2	48	15·98
6	Absorbent „ - - - -	104	—	1	8·82
7	Ductless Glands - - - -	1	—	—	·21
	Respiratory System - - -	573	10	12	31·08
	Digestive „ - - - -	965	6	12	31·63
10	Urinary System - Gonorrhœa - - -	696	—	—	41·45
	Urinary System - Sequelæ of Gonorrhœa -	70	—	—	3·73
	Urinary System - Other diseases - -	115	—	4	5·73
11	Generative System - - -	58	—	1	3·11
12	Organs of Locomotion - -	60	2	11	6·75
13	Cellular Tissue - - -	147	—	2	7·55
14	Cutaneous System - - -	758	—	—	30·32
	III.—*Debility* - -	83	—	19	8·63
	IV.—*Poisons* - -	17	—	—	·47
	V.—*Injuries.*				
1	General - - - - -	1	6	—	·77
2	Local - - - - - -	755	4	10	33·41
3	In action - - - - -	—	—	—	·01
	No appreciable disease - -	17	—	—	·48
	Cause unknown (refers to deaths only)	—	—	—	—
	General total - -	6,106	53	199	346·45

* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	·01	·1	—	—	·01
4·7	—	—	·13	5·6	·04	—	·30
·6	·27	—	·05	1·1	·07	—	·16
7·9	—	—	·30	11·8	·04	—	·39
—	—	—	—	—	—	—	—
19·3	—	—	·84	31·6	—	·07	1·12
—	·14	—	—	·1	—	—	—
1·9	—	—	·07	6·0	·11	—	·25
34·4	·41	—	1·40	56·3	·25	·07	2·23
36·3	—	1·51	2·75	47·4	·11	1·79	2·98
83·0	—	—	6·59	58·5	—	—	5·01
20·4	—	·68	1·69	23·0	—	·60	2·03
9·7	2·47	3·70	1·33	10·9	2·84	4·14	1·88
—	—	—	—	·3	—	—	·03
·6	—	·14	·03	1·8	·07	·17	·23
150·0	2·47	6·03	12·39	141·9	3·02	6·70	12·16
11·8	·27	3·56	1·09	14·5	·49	3·61	1·67
12·3	—	·96	·74	14·5	—	·88	·88
5·4	—	·27	·27	6·8	—	·70	·55
1·2	—	—	·04	·7	—	·04	·02
15·8	·27	6·57	2·19	18·1	·67	5·96	2·11
14·3	—	·14	1·21	12·2	—	—	1·10
·1	—	—	·03	—	—	·04	·01
78·5	1·37	1·64	4·26	95·7	—	2·00	5·23
132·2	·82	1·64	4·33	141·7	1·33	3·12	5·29
95·3	—	—	5·67	100·7	1·05	—	6·11
9·6	—	—	·51	10·2	—	·14	·85
15·8	—	·55	·78	14·5	·28	·42	·77
7·9	—	·14	·43	10·4	—	·28	·59
8·2	·27	1·51	·92	7·2	—	1·05	·81
20·1	—	·27	1·03	19·3	·04	·07	1·05
103·8	—	—	4·15	127·0	—	·31	5·22
11·4	—	2·60	1·18	13·1	—	2·88	1·15
2·3	—	—	·06	2·3	·17	—	·06
·1	·82	—	·11	·2	·53	·07	·03
103·4	·55	1·37	4·58	121·1	·24	1·30	5·47
—	—	—	—	·1	—	·21	·04
2·3	—	—	·07	5·0	—	—	·19
—	—	—	—	—	—	—	—
836·2	7·25	27·25	47·44	933·5	8·07	29·84	53·59

to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT E.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the CHATHAM DISTRICT during the Year 1883, with the Ratios

Orders.	Average Strength, 3,002. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive Fevers { Small-pox	—	—	—	—
	Eruptive Fevers { Other	10	—	—	1·01
	Continued ,, { Enteric	4	2	—	·44
	Continued ,, { Other	20	—	—	·72
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	24	—	—	1·53
	Cholera	—	—	—	—
	Other diseases	11	—	—	·61
	Total	69	2	—	4·31
	Constitutional Group.				
	Rheumatism	146	1	8	9·53
	Primary Syphilis	253	—	—	17·57
	Secondary ,,	49	—	—	4·62
	Tubercular Diseases	15	3	5	2·16
	Scurvy and Purpura	—	—	—	
	Other diseases	1	—	—	·04
	Total	464	4	13	33·92
	II. *Local Diseases.*				
	Diseases of the—				
1	Nervous System	39	3	6	3·23
2	Eye	66	—	6	3·66
3	Ear	30	—	—	1·86
4	Nose	—	—	—	—
5	Circulatory System	44	2	19	3·79
6	Absorbent ,,	28	—	—	1·60
7	Ductless Glands	—	—	—	—
8	Respiratory System	161	5	3	9·47
9	Digestive ,,	376	2	4	11·55
10	Urinary System { Gonorrhœa	309	—	—	18·30
	Urinary System { Sequelæ of Gonorrhœa	32	—	—	2·01
	Urinary System { Other diseases	49	—	1	1·75
11	Generative System	17	—	—	·69
12	Organs of Locomotion	23	—	6	3·18
13	Cellular Tissue	78	—	—	3·15
14	Cutaneous System	275	—	—	11·13
	III.—*Debility*	19	—	6	2·03
	IV.—*Poisons*	7	—	—	·13
	V.—*Injuries.*				
1	General	—	2	—	—
2	Local	282	4	4	13·04
3	In action	—	—	—	—
	No appreciable disease	16	—	—	·49
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	2,384	24	68	129·29

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	·2	·06	—	·01
3·3	—	—	·34	3·4	·06	—	·24
1·3	·67	—	·15	·4	·19	—	·02
6·7	—	—	·24	7·4	·06	—	·33
—	—	—	—	—	—	—	—
8·0	—	—	·51	9·9	—	—	·31
—	—	—	—	—	—	—	—
3·7	—	—	·20	3·8	·06	—	·17
23·0	·67	—	1·44	25·1	·44	—	1·08
48·6	·33	2·66	3·18	53·4	·06	2·68	3·15
84·3	—	—	5·85	61·6	—	—	4·93
16·3	—	—	1·54	18·3	—	1·00	1·59
5·0	1·00	1·66	·72	12·6	1·93	6·04	1·33
—	—	—	—	·2	—	—	—
·3	—	—	·01	·4	—	·12	·02
154·5	1·33	4·33	11·30	146·5	1·99	9·84	11·02
13·0	1·00	2·00	1·08	12·1	·25	3·55	1·22
22·0	—	2·00	1·22	16·6	—	1·74	1·12
10·0	—	—	·62	10·5	—	1·87	·79
—	—	—	—	·5	—	·06	·02
14·7	·67	6·33	1·26	22·0	·62	7·72	2·07
9·3	—	—	·53	10·0	—	—	·68
—	—	—	—	—	—	—	—
53·6	1·66	1·00	3·15	86·6	·75	1·25	4·40
125·3	·67	1·33	3·85	110·5	·31	1·93	3·93
102·9	—	—	6·10	93·9	—	—	5·36
10·7	—	—	·67	11·3	—	—	·64
16·3	—	·33	·58	14·9	·06	·50	·74
5·7	—	—	·23	9·5	—	·25	·41
7·7	—	2·00	1·06	8·5	·06	3·24	·79
26·0	—	—	1·05	22·4	—	·12	·97
91·6	—	—	3·71	109·8	—	·31	3·67
6·3	—	2·00	·68	19·7	—	5·17	1·34
2·3	—	—	·04	2·6	·12	—	·08
—	·67	—	—	·1	·19	—	—
93·9	1·33	1·33	4·34	111·4	·25	1·18	4·56
—	—	—	—	—	—	—	—
5·3	—	—	·16	4·4	—	—	·09
—	—	—	—	—	—	—	—
794·1	7·99	22·65	43·07	848·9	5·04	38·74	44·98

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to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT F.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL,
the SOUTH-EASTERN DISTRICT during the Year 1883, with the Ratios

Orders.	Average Strength, 6,408. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers: Small-pox	1	—	—	·02
	Eruptive Fevers: Other	81	1	—	3·95
	Continued „: Enteric	1	—	—	·10
	Continued „: Other	54	—	—	2·27
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	48	—	—	1·75
	Cholera	1	—	—	·02
	Other diseases	60	—	2	3·51
	Total	246	1	2	11·62
	Constitutional Group.				
	Rheumatism	259	1	9	22·01
	Primary Syphilis	497	—	—	38·72
	Secondary „	155	—	7	13·08
	Tubercular Diseases	46	9	15	6·42
	Scurvy and Purpura	—	—	—	—
	Other diseases	12	—	2	·54
	Total	969	10	33	80·77
	II.—Local Diseases.				
	Diseases of the—				
1	Nervous System	86	4	24	9·74
2	Eye	139	—	17	11·65
3	Ear	43	—	3	3·60
4	Nose	5	—	—	·34
5	Circulatory System	108	3	49	15·62
6	Absorbent „	61	1	1	5·07
7	Ductless Glands	3	—	1	·13
8	Respiratory System	478	12	4	26·61
9	Digestive „	766	1	18	30·00
10	Urinary System: Gonorrhœa	493	—	—	30·58
	Urinary System: Sequelæ of Gonorrhœa	54	—	—	4·51
	Urinary System: Other diseases	88	2	2	3·37
11	Generative System	70	—	1	2·99
12	Organs of Locomotion	61	—	7	4·59
13	Cellular Tissue	132	—	—	5·30
14	Cutaneous System	773	—	5	34·48
	III.—*Debility*	109	—	18	7·82
	IV.—*Poisons*	16	1	—	·75
	V.—*Injuries.*				
1	General	—	5	—	—
2	Local	745	3	5	34·59
3	In action	—	—	—	—
	No appreciable disease	25	—	—	1·00
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	5,470	43	190	325·13

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
·2	—	—	—	·1	—	—	—
12·6	·16	—	·62	6·5	—	—	·25
·2	—	—	·02	·7	·16	—	·07
8·4	—	—	·35	10·4	·08	—	·27
—	—	—	—	—	—	—	—
7·5	—	—	·27	39·2	·04	·16	1·17
·2	—	—	—	—	—	—	—
9·3	—	·31	·55	7·7	·04	—	·30
38·4	·16	·31	1·81	64·6	·32	·16	2·06
40·4	·16	1·40	3·44	43·2	·04	1·79	2·52
77·5	—	—	6·04	55·2	—	—	4·49
24·2	—	1·09	2·04	23·2	—	·76	1·90
7·2	1·40	2·34	1·00	11·2	1·47	4·62	1·71
—	—	—	—	·2	·04	—	—
1·9	—	·31	·08	3·2	·04	·16	·23
151·2	1·56	5·15	12·60	136·2	1·59	7·33	10·85
13·4	·62	3·74	1·52	15·7	·32	2·74	1·37
21·7	—	2·65	1·82	18·7	—	·99	1·07
6·7	—	·47	·56	6·9	—	·68	·47
·8	—	—	·05	·4	—	—	—
16·9	·47	7·65	2·44	13·9	·56	4·22	1·87
9·5	·16	·16	·79	7·8	—	·04	·60
·5	—	·16	·02	·1	—	·04	·01
74·6	1·87	·62	4·15	93·2	1·51	1·39	4·46
119·5	·16	2·81	4·68	128·5	·40	2·79	4·63
76·9	—	—	4·77	75·1	—	—	4·40
8·4	—	·31	·70	9·2	—	·28	·73
13·7	·31	·16	·58	10·4	·08	·64	·64
10·9	—	—	·47	10·8	—	·28	·54
9·5	—	1·09	·72	6·7	·08	·88	·54
20·6	—	—	·83	22·3	—	·08	·88
120·7	—	·78	5·38	122·6	—	·40	4·60
17·0	—	2·81	1·22	11·5	·16	1·99	·89
2·5	·16	—	·12	2·4	—	—	·06
—	·78	—	—	·2	·44	—	·01
116·8	·47	·78	5·40	131·7	·40	1·27	5·46
—	—	—	—	—	—	—	—
3·9	—	—	·16	4·6	—	—	·10
—	—	—	—	—	—	—	—
853·6	6·71	29·65	50·74	893·5	5·85	26·20	45·69

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to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c. &c.

ABSTRACT G.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the HOME DISTRICT during the Year 1883, with the Ratios per

Orders.	Average Strength, 7,315. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers Small-pox	—	—	—	—
	Other	26	—	—	1·67
	Continued „ Enteric	6	3	—	1·30
	Other	125	—	—	4·00
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	34	—	—	2·03
	Cholera	—	—	—	—
	Other diseases	78	1	—	3·11
	Total	269	4	—	12·11
	Constitutional Group.				
	Rheumatism	376	—	3	21·49
	Primary Syphilis	1,303	—	—	104·58
	Secondary „	270	—	7	26·06
	Tubercular Diseases	65	11	27	11·72
	Scurvy and Purpura	3	—	—	·31
	Other diseases	6	1	3	·28
	Total	2,023	12	40	164·44
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System	86	5	15	6·15
2	Eye	89	—	5	5·70
3	Ear	26	—	—	1·58
4	Nose	3	—	—	·09
5	Circulatory System	70	10	20	4·90
6	Absorbent „	122	—	—	12·56
7	Ductless Glands	—	—	—	—
8	Respiratory System	388	10	10	18·80
9	Digestive „	809	3	13	26·91
10	Urinary System Gonorrhœa	665	—	—	39·03
	Sequelæ of Gonorrhœa	96	—	1	5·75
	Other diseases	67	1	7	3·95
11	Generative System	86	—	3	4·20
12	Organs of Locomotion	54	1	6	4·22
13	Cellular Tissue	268	—	1	11·31
14	Cutaneous System	755	—	2	22·36
	III.—*Debility*	92	—	10	5·68
	IV.—*Poisons*	11	—	—	·46
	V.—*Injuries.*				
1	General	1	2	—	·04
2	Local	554	2	5	23·48
3	In action	2	—	3	·03
	No appreciable disease	12	—	—	·17
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	6,548	50	141	373·98

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[*] The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

Deaths, Numbers Invalided and Constantly Sick among the Troops stationed 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	·1	·03	—	—
3·6	—	—	·23	5·2	·07	—	·35
·8	·41	—	·18	2·8	·35	—	·41
17·1	—	—	·55	19·7	·07	—	·56
—	—	—	—	—	—	—	—
4·6	—	—	·28	5·8	—	·10	·16
—	—	—	—	—	—	—	—
10·7	·14	—	·42	8·2	·18	—	·30
36·8	·55	—	1·66	41·8	·70	·10	1·78
51·4	—	·41	2·94	40·6	·21	1·33	2·41
178·1	—	—	14·30	152·3	—	—	11·25
36·9	—	·96	3·56	40·9	—	1·47	3·06
8·9	1·50	3·69	1·60	10·7	2·52	6·51	1·46
·4	—	—	·04	·2	—	—	·03
·8	·14	·41	·04	1·6	·10	·14	·10
276·5	1·64	5·47	22·48	246·3	2·84	9·45	18·31
11·8	·68	2·05	·84	10·5	·67	3·15	·89
12·2	—	·68	·78	9·4	—	·46	·49
3·5	—	—	·22	3·0	—	·49	·17
·4	—	—	·01	·4	—	—	·01
9·6	1·37	2·73	·67	11·4	·74	5·15	1·04
16·7	—	—	1·72	12·5	—	·03	1·22
—	—	—	—	—	—	—	·01
53·0	1·37	1·37	2·57	84·1	1·19	2·21	4·06
110·6	·41	1·78	3·68	112·4	·28	1·61	3·64
90·9	—	—	5·33	96·5	—	—	5·54
13·1	—	·14	·79	12·7	—	·24	·77
9·2	·14	·96	·54	11·5	·24	·77	·48
11·8	—	·41	·57	8·2	—	·21	·42
7·4	·14	·82	·58	6·7	—	1·26	·50
36·6	—	·14	1·55	33·8	·03	·18	1·39
103·2	—	·27	3·06	92·7	—	·35	2·92
12·6	—	1·38	·78	12·4	·08	1·96	·71
1·5	—	—	·06	3·1	·21	—	·08
·1	·27	—	—	·2	·21	—	—
75·7	·27	·68	3·21	89·0	·14	·70	3·38
3	—	·41	·01	—	—	—	—
1·6	—	—	·02	1·9	—	—	·05
	—	—	—	—	—	—	—
895·1	6·84	19·28	51·13	900·5	7·28	28·32	47·86

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to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT H.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the WOOLWICH DISTRICT during the Year 1883, with the Ratios

Orders.	Average Strength, 4,399.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	Diseases.				
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers Small-pox	4	—	—	·32
	Other	20	—	—	1·28
	Continued ,, Enteric	—	—	—	·16
	Other	40	—	—	1·35
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	54	—	1	2·05
	Cholera	—	—	—	—
	Other diseases	17	2	—	1·89
	Total	135	2	1	7·05
	Constitutional Group.				
	Rheumatism	111	—	6	10·07
	Primary Syphilis	379	—	—	35·65
	Secondary ,,	56	—	1	6·10
	Tubercular Diseases	34	11	19	6·25
	Scurvy and Purpura	—	—	—	—
	Other diseases	2	—	2	·80
	Total	582	11	28	58·87
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System	39	4	7	4·61
2	Eye	41	—	1	2·88
3	Ear	12	—	1	·80
4	Nose	3	—	—	·33
5	Circulatory System	39	—	12	4·34
6	Absorbent ,,	31	—	1	4·54
7	Ductless Glands	—	—	—	—
8	Respiratory System	221	5	3	13·06
9	Digestive ,,	426	3	5	18·13
10	Urinary System Gonorrhœa	317	—	—	20·05
	Sequelæ of Gonorrhœa	25	—	—	1·57
	Other diseases	34	1	1	2·24
11	Generative System	30	—	1	1·81
12	Organs of Locomotion	29	1	6	4·27
13	Cellular Tissue	77	—	3	5·96
14	Cutaneous System	289	—	3	15·39
	III.—*Debility*	41	—	8	4·42
	IV.—*Poisons*	22	—	—	·69
	V.—*Injuries.*				
1	General	—	—	—	—
2	Local	288	2	4	16·85
3	In action	—	—	—	—
	No appreciable disease	8	—	—	·24
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	2,689	29	85	188·10

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[*] The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in
per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
·9	—	—	·07	·4	—	—	·05
4·5	—	—	·29	5 7	·10	—	·31
—	—	—	·04	·3	·10	—	·02
9·1	—	—·	·31	7·2	—	—	·25
—	—	—	—	—	—	—	—
12·3	—	·23	·46	20·5	—	—	·74
—	—	—	—	—	—	—	—
3·9	·45	—	·43	41·3	·15	—	1·09
30·7	·45	·23	1·60	75·4	·36	—	2·46
25·2	—	1·36	2·29	32·0	—	1·13	2·18
86·2	—	—	8·10	60·8	—	—	5·35
12·7	—	·23	1·39	63·4	·05	·87	6·22
7·7	2·50	4·32	1·42	9·2	2·21	4·67	1·50
—	—	—	—	·3	—	—	·01
·5	--	·45	·18	2·6	·10	·36	·19
132·3	2·50	6·36	13·38	168·3	2·36	7·03	15·45
8·9	·91	1·59	1·05	7·3	·41	1·70	·69
9·3	—	·23	·65	10·3	—	·67	·64
2·7	—	·23	·18	4·3	—	·82	·32
·7	—	--	·08	·2	—	—	—
8·9	—	2·73	·99	10·6	·56	4·21	1·08
7·1	—	·23	1·03	11·3	—	·05	1·29
—	—	—	—	·1	—	—	—
50·2	1·14	·68	2·97	46·2	1·44	2·21	2·88
96·8	·68	1·14	4·12	96·6	·41	2·00	3·25
72·1	—	—	4·56	64·5	—	--	3·65
5·7	—	—	·36	16·9	—	·10	·89
7·7	·23	·23	·51	10·0	·36	·51	·50
6·8	—	·23	·41	7·6	—	·15	·44
6·6	·23	1·36	·97	5·6	—	1·18	·59
17·5	—	·68	1·35	18·8	—	·10	·95
65·7	—	·68	3·50	83·8	—	·21	3·62
9·3	—	1·82	1·01	7·5	—	2·00	·65
5·0	—	—	·16	1 8	·21	—	·04
—	—	—	-	·1	·26	—	—
65·5	·45	·91	3·83	80·3	·31	·46	3·59
—	—	—	—	·1	—	·05	·01
1·8	—	—	·05	9·3	—	—	·09
—	—	—	—	—	—	—	—
611·3	6·59	19·32	42·76	736·9	6·68	23·46	43·08

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to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT I.—Table showing the Average Strength, Admissions into Hospital, the Aldershot District during the Year 1883, with the Ratios

Orders.	Average Strength, 9,110. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers Small-pox	—	—	—	—
	Other	31	—	—	1·46
	Contie Enteric	13	1	—	1·82
	Other	113	—	—	3·79
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	96	—	—	3·41
	Cholera	—	—	—	—
	Other diseases	72	2	—	3·56
	Total	325	3	—	14·04
	Constitutional Group.				
	Rheumatism	467	—	23	31·83
	Primary Syphilis	1,444	—	—	110·66
	Secondary ,,	343	—	3	32·73
	Tubercular Diseases	75	18	43	12·03
	Scurvy and Purpura	2	—	—	·08
	Other diseases	14	1	—	1·02
	Total	2,345	19	69	188·35
	II.—Local Diseases.				
	Diseases of the—				
1	Nervous System	76	2	25	11·49
2	Eye	207	—	10	11·37
3	Ear	50	—	1	2·99
4	Nose	2	—	—	·03
5	Circulatory System	60	2	22	5·96
6	Absorbent ,,	107	—	—	8·09
7	Ductless Glands	—	—	—	—
8	Respiratory System	568	9	5	30·22
9	Digestive ,,	975	3	21	35·22
10	Urinary System Gonorrhœa	1,072	—	—	65·32
	Sequelæ of Gonorrhœa	81	—	—	5·09
	Other diseases	119	—	7	7·21
11	Generative System	123	—	—	7·39
12	Organs of Locomotion	87	1	10	4·85
13	Cellular Tissue	217	—	—	13·47
14	Cutaneous System	834	—	2	35·78
	III.—Debility	74	—	27	6·77
	IV.—Poisons	10	—	—	·45
	V.—Injuries.				
1	General	—	5	—	—
2	Local	1,070	3	9	46·37
3	In action	—	—	—	—
	No appreciable disease	15	—	—	·88
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	8,367	47	208	501·34

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	·2	—	—	·02
3·4	—	—	·16	9·2	·07	—	·47
1·4	·11	—	·20	1·1	·35	—	·14
12·4	—	—	·42	15·2	·02	—	·63
—	—	—	—	—	—	—	—
10·5	—	—	·37	5·8	·02	·02	·26
—	—	—	—	—	—	—	—
7·9	·22	—	·39	6·2	·02	—	·38
35·6	·33	—	1·54	37·7	·48	·02	1·90
51·3	—	2·52	3·49	47·1	·05	1·47	3·07
158·6	—	—	12·15	86·3	—	—	5·95
37·7	—	·33	3·59	18·8	—	·42	1·30
8·2	1·97	4·72	1·32	8·7	1·57	3·57	1·03
·2	—	—	·01	·2	—	—	·01
1·5	·11	—	·11	1·1	·18	·02	·09
257·5	2·08	7·57	20·67	162·2	1·80	5·48	11·45
8·3	·22	2·74	1·26	13·7	·55	2·67	1·21
22·7	—	1·10	1·25	17·5	—	·92	·96
5·5	—	·11	·33	8·6	—	1·01	·60
·2	—	—	—	·6	—	·05	·03
6·6	·22	2·42	·65	21·1	·71	7·57	2·02
11·7	—	—	·89	14·8	—	·02	1·20
—	—	—	—	·1	—	—	·01
62·3	·99	·55	3·32	72·1	·99	1·29	4·26
107·0	·33	2·31	3·87	112·0	·44	2·65	5·17
117·7	—	—	7·17	102·8	—	—	6·27
8·9	—	—	·56	6·5	—	·05	·47
13·1	—	·77	·79	10·0	·09	·55	·53
13·5	—	—	·81	13·8	·02	·18	·75
4·1	·11	1·10	·53	6·6	·05	1·47	·52
23·8	—	—	1·48	21·0	—	·02	1·06
91·6	—	·22	3·93	110·7	—	·53	5·53
8·1	—	2·96	·74	11·6	—	2·92	·85
1·1	—	—	·05	1·2	·05	—	·05
—	·55	—	—	·1	·23	·02	·07
117·5	·33	·99	5·09	85·3	·25	·83	4·27
—	—	—	—	—	—	—	—
1·6	—	—	·10	1·7	—	—	·10
—	—	—	—	—	—	—	—
918·4	5·16	22·83	55·03	831·7	5·66	28·25	49·28

to 1883 will be given in the Report for 1884 those for the six years 1879 to 1884 in that for 1885 &c. &c.

ABSTRACT J.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the NORTH BRITISH DISTRICT during the Year 1883, with the Ratios

Orders.	Average Strength, 2,881.				
	Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.– General Diseases.				
	Febrile Group.				
	Eruptive Fevers – Small-pox	—	—	—	—
	Eruptive Fevers – Other	15	—	—	·56
	Continued „ – Enteric	6	2	—	·84
	Continued „ – Other	39	—	—	1·02
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	24	—	—	·51
	Cholera	—	—	—	—
	Other diseases	33	—	—	1·29
	Total	117	2	—	4·22
	Constitutional Group.				
	Rheumatism	91	1	2	5·30
	Primary Syphilis	198	—	—	14·65
	Secondary „	67	—	2	4·49
	Tubercular Diseases	24	4	10	3·03
	Scurvy and Purpura	—	—	—	—
	Other diseases	1	1	1	·28
	Total	381	6	15	27·75
	II.– *Local Diseases.*				
	Diseases of the—				
1	Nervous System	28	—	9	1·83
2	Eye	48	—	5	2·77
3	Ear	9	—	2	·94
4	Nose	—	—	—	—
5	Circulatory System	33	—	21	2·56
6	Absorbent „	35	—	—	2·70
7	Ductless Glands	1	—	—	·04
8	Respiratory System	165	2	4	7·98
9	Digestive „	308	4	11	8·88
10	Urinary System – Gonorrhœa	204	—	—	9·35
	Urinary System – Sequelæ of Gonorrhœa	30	—	—	1·50
	Urinary System – Other diseases	22	—	3	1·32
11	Generative System	34	—	—	1·63
12	Organs of Locomotion	10	—	4	·87
13	Cellular Tissue	68	—	1	4·27
14	Cutaneous System	260	—	2	7·17
	III.—*Debility*	37	—	8	2·41
	IV.—*Poisons*	3	—	—	·14
	V.—*Injuries.*				
1	General	—	3	—	—
2	Local	362	—	2	12·38
3	In action	16	—	8	1·31
	No appreciable disease	4	—	—	·23
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	2,175	17	95	102·25

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	—	—	—	—
5·2	—	—	·19	9·3	·07	—	·32
2·1	·69	—	·29	·5	·15	—	·07
13·5	—	—	·35	11·3	—	—	·32
—	—	—	—	—	—	—	—
8·3	—	—	·18	22·2	·15	—	·72
—	—	—	—	—	—	—	—
11·5	—	—	·45	9·3	·07	—	·32
40·6	·69	—	1·46	52·6	·44	—	1·75
31·6	·35	·69	1·84	39·2	·15	·52	1·75
68·7	—	—	5·08	66·1	—	—	4·24
23·3	—	·69	1·56	34·2	·07	1·12	2·20
8·3	1·39	3·47	1·05	13·3	2·09	5·38	1·65
—	—	—	—	·2	—	—	·02
·4	·35	·35	·10	1·1	·07	—	·08
132·3	2·08	5·20	9·63	154·1	2·39	7·02	9·94
9·7	—	3·12	·63	13·3	·52	2·91	1·06
16·7	—	1·74	·96	14·3	—	·30	·89
3·1	—	·69	·33	3·7	—	·60	·24
—	—	—	—	·5	—	—	·03
11·5	—	7·29	·89	16·7	1·12	4·93	1·13
12·2	—	—	·94	11·4	—	—	·78
·3	—	—	·01	·2	—	—	·01
57·3	·69	1·39	2·78	87·4	1·94	·90	3·51
106·9	1·39	3·82	3·08	104·6	·52	2·02	3·48
70·8	—	—	3·24	86·2	—	—	4·11
10·4	—	—	·52	14·1	—	·07	·73
7·6	—	1·04	·46	14·6	·37	·75	·68
11·8	—	—	·57	12·2	—	·45	·49
3·5	—	1·39	·30	6·4	·15	1·34	·54
23·6	—	·35	1·48	26·8	·07	·15	1·03
90·2	—	·69	2·49	115·0	—	·15	4·13
12·8	—	2·78	·84	11·8	—	1·64	·68
1·0	—	—	·05	1·8	·15	—	·05
—	1·04	—	—	—	·45	—	—
125·6	—	·69	4·30	126·1	·45	1·20	4·80
5·6	—	2·78	·45	·1	—	·15	—
1·4	—	—	·08	1·7	—	—	·06
—	—	—	—	—	—	—	—
754·9	5·89	32·97	35·49	875·6	8·59	24·58	40·12

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to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT K.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the CHANNEL ISLANDS DISTRICT during the Year 1883, with the Ratios

Orders.	Average Strength, 1,325. Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers { Small-pox - -	—	—	—	—
	Eruptive Fevers { Other - -	4	—	—	·09
	Continued „ { Enteric - -	—	—	—	—
	Continued „ { Other - -	5	—	—	·07
	Yellow Fever - - - -	—	—	—	—
	Paroxysmal Fevers - - -	2	—	—	·22
	Cholera - - - -	—	—	—	—
	Other diseases - - -	6	—	—	·39
	Total - - -	17	—	—	·77
	Constitutional Group.				
	Rheumatism - - - -	34	—	—	2·22
	Primary Syphilis - - -	173	—	—	12·82
	Secondary „ - - -	44	—	—	2·59
	Tubercular Diseases - - -	6	—	1	·52
	Scurvy and Purpura - - -	—	—	—	—
	Other diseases - - -	1	—	—	·04
	Total - - -	258	—	1	18·19
	II.—Local Diseases.				
	Diseases of the—				
1	Nervous System - - -	10	—	2	·59
2	Eye - - - - -	13	—	—	·48
3	Ear - - - - -	5	—	—	·29
4	Nose - - - - -	—	—	—	—
5	Circulatory System - - -	6	—	1	·21
6	Absorbent „ - - -	9	—	—	1·02
7	Ductless Glands - - -	1	—	—	·07
8	Respiratory System - - -	43	1	—	2·03
9	Digestive „ - - -	106	1	—	3·02
10	Urinary System { Gonorrhœa - -	280	—	—	16·09
	Urinary System { Sequelæ of Gonorrhœa -	20	—	—	1·34
	Urinary System { Other diseases - -	31	—	—	1·17
11	Generative System - - -	20	—	—	·96
12	Organs of Locomotion - -	6	—	1	1·09
13	Cellular Tissue - -	31	—	—	1·42
14	Cutaneous System - -	160	—	—	5·24
	III.—Debility -	10	—	2	·32
	IV.—Poisons - -	11	—	—	·15
	V.—Injuries.				
1	General - - -	1	3	—	·02
2	Local - - - -	150	—	1	5·95
3	In action - - - - -	—	—	—	—
	No appreciable disease - -	5	—	—	·26
	Cause unknown (refers to deaths only)	—	—	—	—
	General total - -	1,193	5	8	60·68

* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

Deaths, Numbers Invalided and Constantly Sick among the Troops stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	—	—	—	—
3·0	—	—	·07	·7	—	—	·04
—	—	—	—	·9	—	—	·20
3·8	—	—	·05	20·8	—	—	·45
—	—	—	—	—	—	—	—
1·5	—	—	·17	4·9	—	—	·09
—	—	—	—	—	—	—	—
4·5	—	—	·29	2·3	—	—	·18
12·8	—	—	·58	29·6	—	—	·96
25·6	—	—	1·68	33·9	—	·56	1·76
130·6	—	—	9·68	114·7	—	—	9·41
33·2	—	—	1·95	29·6	—	·19	1·63
4·5	—	·75	·39	7·1	2·62	2·06	1·02
—	—	—	—	—	—	—	—
·8	—	—	·03	3·9	—	—	·19
194·7	—	·75	13·73	189·2	2·62	2·81	14·01
7·5	—	1·51	·45	9·6	·37	1·87	86
9·8	—	—	·36	16·3	—	·56	·73
3·8	—	—	·22	3·9	—	·38	·15
—	—	—	—	·6	—	—	·02
4·5	—	·75	·16	13·1	·56	1·87	·76
6·8	—	—	·77	31·5	—	—	2·95
·8	—	—	·05	—	—	—	—
32·5	·75	—	1·53	72·7	·75	1·31	2·80
80·0	·75	—	2·28	108·8	·19	1·12	3·16
211·3	—	—	12·14	155·3	—	—	7·91
15·1	—	—	1·01	22·3	—	—	1·21
23·4	—	—	·88	14·6	—	·19	·50
15·1	—	—	·72	8·6	—	—	·29
4·5	—	·75	·82	5·8	—	·75	·61
23·4	—	—	1·07	17·8	—	—	·52
120·8	—	—	3·96	130·0	—	·19	4·19
7·5	—	1·51	·24	8·2	—	2·25	·73
8·3	—	—	·11	4·5	·.9	—	·09
·8	2·26	—	·02	·2	·75	—	·03
113·2	—	·75	4·49	149·7	·37	1·31	4·97
—	—	—	—	—	—	—	—
3·8	—	—	·20	2·4	—	—	·06
—	—	—	—	—	—	—	—
900·4	3·77	6·03	45·79	994·7	5·80	14·61	47·51

to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT L.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS, into HOSPITAL, the BELFAST DISTRICT during the Year 1883, with the Ratios

Orders.	Average Strength, 2,850.				
	Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive Fevers { Small-pox	—	—	—	—
	Eruptive Fevers { Other	17	—	—	·76
	Continued „ { Enteric	3	1	—	·46
	Continued „ { Other	46	—	—	1·08
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	10	—	—	·10
	Cholera	—	—	—	—
	Other diseases	9	—	—	·36
	Total	85	1	—	2·76
	Constitutional Group.				
	Rheumatism	77	—	3	5·48
	Primary Syphilis	300	—	—	22·15
	Secondary „	51	—	2	4·02
	Tubercular Diseases	23	5	14	3·93
	Scurvy and Purpura	—	—	—	—
	Other diseases	—	—	—	—
	Total	451	5	19	35·58
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System	32	4	14	5·80
2	Eye	42	—	4	3·48
3	Ear	17	—	3	1·37
4	Nose	3	—	—	·08
5	Circulatory System	25	2	3	2·15
6	Absorbent „	19	—	—	1·69
7	Ductless Glands	—	—	—	—
8	Respiratory System	135	5	5	7·35
9	Digestive „	209	1	7	7·44
	Urinary System { Gonorrhœa	299	—	—	16·25
10	Urinary System { Sequelæ of Gonorrhœa	23	—	—	1·19
	Urinary System { Other diseases	39	1	3	1·76
11	Generative System	29	—	—	1·19
12	Organs of Locomotion	7	—	2	·58
13	Cellular Tissue	40	—	—	1·30
14	Cutaneous System	272	—	1	8·54
	III.—*Debility*	39	—	5	2·53
	IV.—*Poisons*	11	1	—	·36
	V.—*Injuries.*				
1	General	—	1	—	—
2	Local	257	—	2	9·24
3	In action	—	—	—	—
	No appreciable disease	6	—	—	·18
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	2,040	21	68	110·82

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	·1	·09	—	—
6·0	—	—	·26	3·4	·09	—	·22
1·0	·35	—	·16	·8	·09	—	·08
16·1	—	—	·38	21·4	·29	—	·50
—	—	—	—	—	—	—	—
3·5	—	—	·04	7·1	—	·09	·19
—	—	—	—	—	—	—	—
3·2	—	—	·13	9·2	—	—	·35
29·8	·35	—	·97	42·0	·57	·09	1·34
27·0	—	1·05	1·92	43·3	—	2·11	2·16
105·3	—	—	7·77	119·7	—	—	8·05
17·9	—	·70	1·41	29·2	·09	·29	1·76
8·1	1·75	4·91	1·38	10·6	1·92	3·64	1·00
—	—	—	—	·3	—	—	·03
—	—	—	—	·8	·09	—	·06
158·3	1·75	6·67	12·48	203·9	2·11	6·04	13·06
11·2	1·40	4·91	2·03	12·7	·19	2·20	1·06
14·7	—	1·40	1·22	15·9	—	·86	·76
6·0	—	1·05	·48	4·8	—	·48	·17
1·0	—	—	·03	·4	—	—	·02
8·8	·70	1·05	·75	14·2	1·34	3·26	·87
6·7	—	—	·59	18·5	—	—	1·47
—	—	—	—	—	—	—	—
47·4	1·75	1·75	2·58	71·7	1·44	1·73	2·98
73·3	·35	2·46	2·61	103·0	·48	1·25	2·67
104·9	—	—	5·70	108·7	—	—	5·31
8·1	—	—	·42	6·6	—	—	·37
13·7	·35	1·05	·62	10·2	·19	·29	·44
10·2	—	—	·42	11·2	—	·38	·37
2·4	—	·70	·20	5·3	·09	1·34	·43
14·0	—	—	·46	21·9	—	—	·76
95·4	—	·35	3·00	120·6	—	·38	4·33
13·7	—	1·75	·89	12·7	—	2·78	·74
3·8	·35	—	·13	2·5	·09	—	·06
—	·35	—	—	·3	·48	—	·01
90·2	—	·70	3·24	101·2	·29	1·05	3·38
—	—	—	—	—	—	—	—
2·1	—	—	·06	2·7	—	—	·15
—	—	—	—	—	—	—	—
715·7	7·36	23·85	38·88	891·0	7·28	22·14	40·75

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to 1883, will be given in the Report for 1884; those for the six years 1879 to 1884, in that for 1885, &c., &c.

ABSTRACT M.—Table showing the Average Strength, Admissions into Hospital
the Dublin District during the Year 1883, with the Ratio

Orders.	Average Strength, 7,859.				
	Diseases.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers { Small pox	—	—	—	—
	Eruptive Fevers { Other	88	—	—	1·79
	Continued „ { Enteric	35	7	—	4·46
	Continued „ { Other	141	1	—	4·58
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	35	—	—	·95
	Cholera	—	—	—	—
	Other diseases	94	2	—	2·62
	Total	343	10	—	14·40
	Constitutional Group.				
	Rheumatism	306	1	7	17·64
	Primary Syphilis	1,377	—	—	115·71
	Secondary „	424	—	5	28·48
	Tubercular Diseases	86	9	36	11·24
	Scurvy and Purpura	5	—	—	·49
	Other diseases	8	—	1	·87
	Total	2,206	10	49	174·43
	II.—Local Diseases.				
	Diseases of the—				
1	Nervous System	91	1	23	14·89
2	Eye	115	—	5	4·96
3	Ear	56	—	6	2·72
4	Nose	5	—	1	·10
5	Circulatory System	130	6	52	14·38
6	Absorbent „	105	—	—	9·26
7	Ductless Glands	—	—	—	—
8	Respiratory System	580	11	6	28·77
9	Digestive „	843	—	24	27·90
10	Urinary System { Gonorrhœa	1,105	—	—	73·82
	Urinary System { Sequelæ of Gonorrhœa	85	—	—	4·08
	Urinary System { Other diseases	136	—	2	4·69
11	Generative System	84	—	1	5·20
12	Organs of Locomotion	49	—	12	4·68
13	Cellular Tissue	193	—	4	9·75
4	Cutaneous System	788	—	3	29·56
	III.—Debility	72	—	8	5·10
	IV.—Poisons	11	—	—	·25
	V.—Injuries.				
1	General	—	4	—	—
2	Local	841	9	6	29·44
3	In action	—	—	—	—
	No appreciable disease	16	—	—	1·37
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	7,854	51	202	459·75

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	·4	—	—	·03
4·8	—	—	·23	5·7	·11	—	·28
4·5	·89	—	·57	1·6	·28	—	·14
17·9	·13	—	·58	16·3	·09	—	·58
—	—	—	—	—	—	—	—
4·5	—	—	·12	5·0	·02	·02	·15
—	—	—	—	—	—	—	—
11·9	·25	—	·33	5·4	·15	—	·21
43·6	1·27	—	1·83	34·4	·65	·02	1·39
38·9	·13	·89	2·25	32·6	·07	·74	1·73
175·2	—	—	14·72	131·9	—	—	10·09
54·0	—	·64	3·62	33·1	·04	·43	2·20
11·0	1·14	4·58	1·43	8·5	1·52	3·73	1·17
·6	—	—	·06	·3	—	—	·02
1·0	—	·13	·11	·8	·02	—	·07
280·7	1·27	6·24	22·19	207·2	1·65	4·90	15·28
11·6	·13	2·93	1·89	11·0	·43	2·60	1·47
14·6	—	·64	·63	15·0	—	·76	·78
7·1	—	·76	·35	5·3	—	·56	·29
·6	—	·13	·01	·4	—	·02	·02
16·5	·76	6·62	1·83	12·4	·59	2·93	1·12
13·4	—	—	1·18	14·5	—	·15	1·19
—	—	—	—	—	—	—	—
73·8	1·40	·76	3·66	77·2	1·32	·82	3·88
107·3	—	3·05	3·55	94·3	·56	1·45	2·87
140·6	—	—	9·39	108·7	—	—	6·28
10·8	—	—	·52	11·8	—	·02	·79
17·3	—	·25	·60	15·4	·15	·35	·67
10·7	—	·13	·66	11·8	—	·11	·62
6·2	—	1·52	·59	6·9	·02	1·37	·57
24·6	—	·51	1·24	22·7	—	·11	·99
100·3	—	·38	3·76	118·2	—	·35	4·52
9·2	—	1·02	·65	7·0	—	·91	·49
1·4	—	—	·03	2·0	·09	—	·06
—	·51	—	—	·1	·52	—	—
107·0	1·14	·76	3·74	109·6	·20	·48	4·12
—	—	—	—	—	—	—	—
2·0	—	—	·17	2·9	—	—	·10
—	—	—	—	—	—	—	—
999·3	6·48	25·70	58·47	888·8	6·18	17·91	47·50

to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT N.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into HOSPITAL, the CORK DISTRICT during the Year 1883, with the Ratios per

Orders.	Average Strength, 8,312.	Admissions into Hospital.	Deaths.	Invalids Discharged the Service.	Average Number constantly Sick.
	Diseases.				
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive fevers { Small-pox	—	—	—	—
	Eruptive fevers { Other	21	—	—	1·14
	Continued „ { Enteric	18	—	—	2·59
	Continued „ { Other	79	—	—	2·43
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	58	—	—	1·67
	Cholera	—	—	—	—
	Other diseases	41	2	—	1·48
	Total	217	2	—	9·31
	Constitutional Group.				
	Rheumatism	210	—	2	11·92
	Primary Syphilis	569	—	—	43·17
	Secondary „	180	—	1	11·18
	Tubercular Diseases	70	15	22	8·86
	Scurvy and Purpura	2	—	—	·06
	Other diseases	10	3	—	·79
	Total	1,041	18	25	75·98
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System	81	2	26	10·47
2	Eye	108	—	6	4·45
3	Ear	40	—	1	1·83
4	Nose	5	—	—	·09
5	Circulatory System	85	5	16	7·79
6	Absorbent „	63	—	1	4·47
7	Ductless Glands	1	—	—	·29
8	Respiratory System	415	6	1	17·11
9	Digestive „	759	3	11	20·78
10	Urinary System { Gonorrhœa	547	—	—	33·92
	Urinary System { Sequelæ of Gonorrhœa	63	—	—	4·18
	Urinary System { Other diseases	90	—	2	2·65
11	Generative System	60	—	1	2·42
12	Organs of Locomotion	52	—	13	4·24
13	Cellular Tissue	184	—	—	8·31
14	Cutaneous System	787	—	1	26·58
	III.—*Debility*	69	—	11	4·10
	IV.—*Poisons*	8	—	—	·15
	V.—*Injuries.*				
1	General	2	1	—	·28
2	Local	866	2	4	27·40
3	In action	—	—	—	—
	No appreciable disease	22	—	—	·56
	Cause unknown (refers to deaths only)	—	—	—	—
	General total	5,565	39	119	267·36

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS stationed in
1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 1879 to 1882.			
Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.	Admissions.	Deaths.	Invalids Discharged the Service.	Constantly Sick.
—	—	—	—	—	—	—	—
2·5	—	—	·14	4·6	·26	—	·29
2·2	—	—	·31	3·7	·56	—	·34
9·5	—	—	·29	21·8	·07	—	·66
—	—	—	—	—	—	—	—
7·0	—	—	·20	11·8	—	—	·32
—	—	—	—	—	—	—	—
4·9	·24	—	·18	9·8	·03	—	·28
26·1	·24	—	1·12	51·7	·92	—	1·89
25·3	—	·24	1·43	34·1	—	·66	1·71
68·5	—	—	5·19	61·5	—	—	4·30
21·6	—	·12	1·35	20·6	·03	·26	1·45
8·4	1·81	2·65	1·07	9·9	1·61	3·03	1·07
·2	—	—	·01	·2	—	—	·03
1·2	·36	—	·09	1·6	·03	·16	·08
125·2	2·17	3·01	9·14	127·9	1·67	4·11	8·64
9·8	·24	8·13	1·26	12·1	·40	2·27	·81
13·0	—	·72	·53	14·4	—	·79	·67
4·8	—	·12	·22	6·5	—	·86	·34
·6	—	—	·01	·6	—	—	·02
10·2	·60	1·93	·94	12·9	·56	2·96	·93
7·6	—	·12	·54	7·7	·03	·07	·43
·1	—	—	·03	·1	—	—	—
49·9	·72	·12	2·06	64·4	1·15	·59	2·66
91·3	·36	1·82	2·50	110·5	·36	1·15	3·07
65·8	—	—	4·08	66·2	—	—	3·34
7·6	—	—	·50	8·4	—	·10	·57
10·8	—	·24	·32	10·7	·07	·26	·44
7·2	—	·12	·29	10·6	—	·03	·50
6·3	—	1·56	·51	5·9	·13	·76	·40
22·1	—	—	1·00	22·0	—	·03	·93
94·7	—	·12	3·20	112·3	—	·23	4·09
8·3	—	1·32	·49	8·5	·03	1·32	·61
1·0	—	—	·02	1·2	·10	—	·05
·2	·12	—	·03	·1	·40	—	·01
104·2	·24	·48	8·30	119·2	·26	·73	3·99
—	—	—	—	—	—	—	—
2·7	—	—	·07	3·2	—	—	·09
—	—	—	—	—	—	—	—
669·5	4·69	14·31	32·16	777·1	6·08	15·76	34·48

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to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT O.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into
stationed in the CURRAGH DISTRICT during the Year 1883, with the

Orders.	Average Strength, 3,041.	Admissions into Hospital.	Deaths.	Invalids discharged the Service.	Average Number constantly Sick.
	Diseases.				
	I.—General Diseases.				
	Febrile Group.				
	Eruptive Fevers { Small-pox	—	—	—	—
	Other	9	—	—	1·07
	Continued ,, { Enteric	—	—	—	—
	Other	32	—	—	·73
	Yellow Fever	—	—	—	—
	Paroxysmal Fevers	32	—	2	1·28
	Cholera	—	—	—	—
	Other diseases	11	—	—	·37
	Total	84	—	2	3·45
	Constitutional Group.				
	Rheumatism	101	—	4	6·35
	Primary Syphilis	414	—	—	30·15
	Secondary ,,	60	—	1	4·44
	Tubercular Diseases	33	4	13	4·44
	Scurvy and Purpura	1	—	—	·07
	Other diseases	4	—	—	·71
	Total	613	4	18	46·16
	II.—Local Diseases.				
1	Nervous System	35	1	4	2·65
2	Eye	33	—	—	1·60
3	Ear	11	—	—	·44
4	Nose	—	—	—	—
5	Circulatory System	50	1	10	2·95
6	Absorbent ,,	40	—	—	3·18
7	Ductless Glands	—	—	—	—
8	Respiratory System	279	3	2	17·81
9	Digestive ,,	312	—	5	10·91
10	Urinary System { Gonorrhœa	221	—	—	13·92
	Sequelæ of Gonorrhœa	34	—	—	2·77
	Other diseases	60	—	1	1·77
11	Generative System	42	—	—	2·78
12	Organs of Locomotion	11	1	2	1·09
13	Cellular Tissue	47	—	—	1·91
14	Cutaneous System	286	—	—	10·84
	III.—Debility	33	—	3	3·54
	IV.—Poisons	5	—	—	·10
	V.—Injuries.				
1	General	—	—	—	—
2	Local	301	1	3	13·48
3	In action	—	—	—	—
	No appreciable disease	23	—	—	·64
	Cause unknown (refers to death only)	—	—	—	—
	General total	2,520	11	50	141·99

* The average ratio for 10 years will be given in future years. The average ratios for the year

Hospital, Deaths, Numbers Invalided and **Constantly Sick** among the **Troops**
Ratios per 1,000 of the Strength and the average Ratios for 10 Years.*

Ratio per 1,000.				Average Ratio per 1,000 from 18— to 18—.			
Ad-missions.	Deaths.	Invalids discharged the Service.	Constantly Sick.	Ad-missions.	Deaths.	Invalids discharged the Service.	Constantly Sick.
—	—	—	—				
3·0	—	—	·35				
—	—	—	—				
10·5	—	—	·24				
—	—	—	—				
10·5	—	·66	·42				
—	—	—	—				
3·6	—	—	·12				
27·6	—	·66	1·13				
33·2	—	1·31	2·09				
136·1	—	—	9·91				
19·7	—	·33	1·46				
10·9	1·31	4·27	1·46				
·3	—	—	·02				
1·3	—	—	·23				
201·5	1·31	5·91	15·17				
11·5	·33	1·31	·87				
10·9	—	—	·53				
3·6	—	—	·14				
—	—	—	—				
16·4	·33	3·29	·97				
13·2	—	—	1·05				
—	—	—	—				
91·7	·99	·66	5·86				
102·6	—	1·64	3·59				
72·7	—	—	4·58				
11·2	—	—	·91				
19·7	—	·33	·58				
13·8	—	—	·92				
3·6	·33	·66	·36				
15·5	—	—	·63				
94·1	—	—	3·57				
10·9	—	·99	1·16				
1·6	—	—	·03				
—	—	—	—				
99·0	·33	·99	4·43				
—	—	—	—				
7·6	—	—	·21				
—	—	—	—				
828·7	3·62	16·44	46·69				

1883, will be given in the Report for 1884; those for the two years 1883 to 1884 in that for 1885, &c. &c.

ABSTRACT P.—TABLE showing the AVERAGE STRENGTH, SICKNESS, and MORTALITY, the ratios per 1,000

Orders.	Average Strength.	Officers, 3,493.			
				Ratios per 1,000.	
	Diseases.	Attacks of Illness.	Deaths.	Attacks.	Deaths.
	I.—*General Diseases.*				
	Febrile Group.				
	Eruptive fevers Small-pox - -	—	—	—	—
	Other - -	19	—	5·4	—
	Continued „ Enteric - -	11	4	3·1	1·14
	Other - -	41	—	11·7	—
	Yellow Fevers - - -	—	—	—	—
	Paroxysmal Fever - - -	44	—	12·6	—
	Cholera - - - -	—	—	—	—
	Other diseases - - -	25	—	7·2	—
	Total - - -	140	4	40·0	1·14
	Constitutional Group.				
	Rheumatism - - - -	83	—	23·8	—
	Primary Syphilis - - -	18	—	5·1	—
	Secondary „ - - -	8	—	2·3	—
	Tubercular Diseases - - -	1	1	·3	·29
	Scurvy and Purpura - - -	—	—	—	—
	Other diseases - - -	—	—	—	—
	Total - - -	110	1	31·5	·29
	II.—*Local Diseases.*				
	Diseases of the—				
1	Nervous System - - -	27	1	7·7	·29
2	Eye - - - - -	13	—	3·7	—
3	Ear - - - - -	1	—	·3	—
4	Nose - - - - -	—	—	—	—
5	Circulatory System - - -	2	—	·6	—
6	Absorbent „ - - -	41	—	11·7	—
7	Ductless Glands - - -	—	—	—	—
8	Respiratory System - - -	167	1	47·8	·29
9	Digestive „ - - -	221	1	63·3	·29
10	Urinary System Gonorrhœa - -	22	—	6·3	—
	Sequelæ of Gonorrhœa -	15	—	4·3	—
	Other diseases - -	16	2	4·6	·57
11	Generative System - - -	11	—	3·1	—
12	Organs of Locomotion - -	11	—	3·1	—
13	Cellular Tissue - - -	32	—	9·2	—
14	Cutaneous System - - -	53	—	15·2	—
	III.—*Debility.*	25	—	7·2	—
	IV.—*Poisons.*	1	—	·3	—
	V.—*Injuries*				
1	General - - - - -	—	1	—	·29
2	Local - - - - -	207	1	59·3	·29
3	In action - - - - -	—	—	—	—
	No appreciable disease - -	2	—	·6	—
	Cause unknown (refers to death only)	—	—	—	—
	General total - -	1,117	12	319·8	3·44

among the OFFICERS, WOMEN, and CHILDREN, in the UNITED KINGDOM in 1883, with of the strength.

Women, 9,088.				Children, 15,798.			
Attacks of Illness.	Deaths.	Ratios per 1,000.		Attacks of Illness.	Deaths.	Ratios per 1,000.	
		Attacks.	Deaths.			Attacks.	Deaths.
1	—	·1	—	—	—	—	—
29	—	3·2	—	889	28	56·3	1·77
7	3	·8	·33	8	1	·5	·06
43	—	4·6	—	197	2	12·5	·13
—	—	—	—	—	—	—	—
36	1	4·0	·11	33	3	2·1	·19
—	—	—	—	—	—	—	—
45	1	5·0	·11	362	28	22·9	1·77
161	5	17·7	·55	1,489	62	94·3	3·92
176	3	19·4	·33	25	—	1·6	—
—	—	—	—	—	—	—	—
10	—	1·1	—	17	2	1·1	·13
115	17	12·6	1·87	78	20	4·9	1·27
1	—	·1	—	1	—	·1	—
50	—	5·5	—	32	4	2·0	·25
352	20	38·7	2·20	153	26	9·7	1·65
211	3	23·2	·33	211	106	13·3	6·71
42	—	4·6	—	128	—	8·1	—
2	—	·2	—	13	—	·8	—
2	—	·2	—	—	—	—	—
49	9	5·4	·99	6	1	·4	·06
18	—	2·0	—	47	—	3·0	—
1	—	·1	—	—	—	—	—
515	5	56·7	·55	1,622	73	102·7	4·62
870	6	95·7	·66	1,156	45	73·2	2·85
23	1	2·5	·11	11	—	·7	—
426	7	47·0	·77	13	—	·8	—
10	—	1·1	—	14	1	·9	·06
49	—	5·4	—	77	2	4·9	·13
91	—	10·0	—	389	—	24·5	—
564	1	62·1	·11	331	41	21·0	2·59
2	—	·2	—	—	—	—	—
—	—	—	—	3	3	·2	·19
65	—	7·2	—	212	2	13·4	·13
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
3,453	57	380·0	6·27	5,875	362	371·9	22·91

ABSTRACT Q. — RETURN showing the Number of SOLDIERS serving at VENEREAL DISEASES in each Week subsequently to the Abolition of DISEASES ACTS, down to the end of the Year 1883; and also for the corre- Numbers at the FOURTEEN STATIONS formerly Protected under the Acts, Comparison, at other Non-protected Stations, and at all Non-protected Strength, and the Total Ratio per 1,000 for the Period shown.

YEAR 1883.	NUMBERS - - - -									
	14 Protected Stations.			14 Unprotected Stations.			Remaining Unprotected Stations.			
Week ending	Strength.	Admitted.	Remaining.	Strength.	Admitted.	Remaining.	Strength.	Admitted.	Remaining.	
11 May - - -	37,363	141	551	18,160	109	417	24,354	79	258	1
18 „ - - -	37,792	163	558	18,443	149	440	24,656	102	276	2
25 „ - - -	38,255	164	602	18,565	134	447	24,813	95	278	3
1 June - -	40,068	180	615	18,757	144	473	25,362	91	288	4
8 „ - -	40,803	161	629	18,936	135	496	25,690	87	280	5
15 „ - -	40,159	180	637	18,808	138	484	25,887	86	273	6
22 „ - -	40,455	212	648	18,441	130	495	26,111	94	272	7
29 „ -	40,380	220	678	18,160	156	501	26,935	109	300	8
6 July - - -	39,870	209	694	18,162	137	511	26,319	97	296	9
13 „ - - -	39,801	224	744	17,910	140	493	25,924	107	309	10
20 „ - - -	40,104	219	783	17,968	151	522	26,359	110	303	11
27 „ - - -	40,393	214	785	18,113	131	520	26,842	98	297	12
3 August - -	40,780	214	790	18,332	149	525	26,794	117	313	13
10 „ - -	40,833	226	814	18,471	132	507	26,815	127	331	14
17 „ - -	41,161	205	814	18,354	134	490	26,718	116	326	15
24 „ - -	41,322	220	825	18,158	148	487	27,006	146	377	16
31 „ - -	41,104	206	800	18,965	142	473	27,028	114	375	17
7 September -	40,726	208	785	18,343	142	486	27,064	131	385	18
14 „ -	39,290	215	791	18,531	158	501	26,787	134	387	19
21 „ -	39,060	272	829	18,584	141	503	26,692	134	399	20
28 „ -	38,265	217	864	18,545	160	501	26,587	134	411	21
5 October - -	38,415	220	860	19,203	159	529	25,921	136	405	22
12 „ - -	38,868	235	861	19,748	162	566	25,759	154	434	23
19 „ - -	38,699	220	849	19,309	185	593	25,956	113	433	24
26 „ - -	37,966	213	895	19,240	135	562	25,627	88	380	25
2 November -	37,565	167	831	19,144	146	564	25,880	86	350	26
9 „ -	37,268	218	840	19,340	146	571	25,865	107	355	27
16 „ -	36,944	241	857	19,189	138	548	25,856	113	381	28
23 „ -	37,422	215	863	19,663	172	584	25,340	130	298	29
30 „ -	37,646	227	871	19,841	148	541	25,916	113	380	30
7 December -	38,733	225	885	19,732	157	551	26,325	121	390	31
14 „ -	38,688	187	851	19,430	104	502	26,194	91	370	32
21 „ -	36,998	154	774	18,857	123	481	25,166	72	330	33
28 „ -	36,328	168	723	18,360	111	475	25,015	95	325	34
TOTAL Admitted -	- -	6,960	- -	- -	4,846	- -	- -	3,722	- -	35
Average Strength and Number Remaining -	39,104	- -	- -	18,758	- -	- -	26,046	- -	- -	36

Home Admitted to Hospital for, and Remaining in Hospital on account of, the COMPULSORY EXAMINATION of WOMEN under the CONTAGIOUS sponding Week of the Years 1880, 1881, and 1882, showing separately the at the FOURTEEN STATIONS not formerly so Protected which were used for Stations, together, in each Case, with the Weekly Ratio per 1,000 of

	NUMBERS.			RATIOS.									
	All Unprotected Stations.			14 Protected Stations.		14 Unprotected Stations.		Remaining Unprotected Stations.		All Unprotected Stations.			
	Strength.	Admitted.	Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.		
1	42,514	188	675	3·78	14·75	6·02	22·96	3·25	10·59	4·44	15·88		
2	43,099	251	716	4·33	14·76	8·10	23·86	4·15	11·19	5·84	16·61		
3	43,378	229	725	4·30	15·74	7·24	24·08	3·84	11·20	5·29	16·71		
4	44,119	235	761	4·50	15·35	7·70	25·22	3·60	11·36	5·34	17·25		
5	44,626	222	776	3·96	15·41	7·15	26·19	3·40	10·90	4·99	17·39		
6	44,695	224	757	4·50	15·86	7·36	25·73	3·33	10·53	5·03	16·94		
7	44,552	224	767	5·25	16·02	7·07	26·81	3·61	10·42	5·04	17·22		
8	45,095	265	801	5·46	16·79	8·61	27·59	4·06	11·14	5·89	17·76		
9	44,481	234	807	5·26	17·41	7·56	28·14	3·70	11·25	5·28	18·14		
10	43,834	247	802	5·64	18·69	7·84	27·53	4·14	11·92	5·65	18·30		
11	44,327	261	825	5·48	19·52	8·43	29·05	4·19	11·40	5·90	18·61		
12	44,955	224	817	5·31	19·43	7·25	28·71	3·48	11·06	5·00	18·17		
13	45,126	266	838	5·26	19·37	8·15	28·64	4·38	11·68	5·91	18·57		
14	45,286	259	838	5·55	19·94	7·17	27·45	4·75	12·34	5·74	18·50		
15	45,072	250	816	5·00	19·78	7·32	26·70	4·35	12·20	5·56	18·10		
16	45,164	294	864	5·34	19·96	8·17	26·82	5·42	13·96	6·53	19·13		
7	45,993	256	848	5·03	19·46	7·51	24·94	4·23	13·87	5·58	18·44		
18	45,407	273	871	5·12	19·27	7·76	26·49	4·85	14·23	6·03	19·18		
19	45,318	292	888	5·40	20·13	8·55	27·04	5·02	14·45	6·46	19·59		
20	45,276	275	902	6·98	21·22	7·61	27·07	5·04	14·95	6·09	19·92		
21	45,132	294	912	5·69	22·58	8·65	27·01	5·05	15·46	6·53	20·21		
22	45,124	295	934	5·74	22·39	8·30	27·55	5·26	15·62	6·56	20·70		
23	45,507	316	1,000	6·06	22·15	8·23	28·66	5·99	16·85	6·96	21·97		
24	45,265	298	1,026	5·70	21·94	9·61	30·71	4·37	16·68	6·60	22·67		
25	44,867	223	942	5·63	23·57	7·04	29·21	3·44	14·83	4·98	20·99		
26	45,024	232	914	4·46	22·12	7·65	29·46	3·33	13·52	5·17	20·30		
27	45,205	253	926	5·87	22·54	7·57	29·52	4·15	13·72	5·61	20·48		
28	45,045	251	929	6·54	23·20	7·21	28·56	4·38	14·74	5·59	20·62		
29	45,003	302	882	5·76	23·06	8·77	29·70	5·14	11·76	6·73	19·60		
30	45,757	261	921	6·05	23·14	7·48	27·27	4·37	14·33	5·72	20·13		
31	46,057	278	941	5·83	22·85	7·98	27·92	4·61	14·81	6·05	20·43		
32	45,624	195	872	4·85	22·00	5·37	25·84	3·49	14·13	4·29	19·11		
33	44,023	195	814	4·17	20·92	6·54	25·67	2·87	13·11	4·44	18·49		
34	43,375	206	800	4·64	19·90	6·20	25·87	3·81	12·99	4·76	18·44		
35	- -	8,568	- -	177·99	- -	258·35	- -	142·90	- -	191·23	—		
36	44,804	- -	- -	- -	19·70	- -	27·19	- -	13·06	- -	18·98		

YEAR 1882.	NUMBERS - - - - - -									
	14 Protected Stations.			14 Unprotected Stations.			Remaining Unprotected Stations.			
Week ending	Strength.	Admitted.	Remaining.	Strength.	Admitted.	Remaining.	Strength.	Admitted.	Remaining.	
12 May - - -	47,395	129	587	19,024	143	483	24,203	81	283	1
19 „ - - -	47,616	185	602	18,873	113	478	25,201	92	283	2
26 „ - - -	47,805	124	563	18,620	126	483	25,371	97	299	3
2 June - -	46,895	174	592	19,525	109	461	25,370	101	310	4
9 „ - -	46,814	163	604	19,625	163	471	25,886	104	318	5
16 „ - -	47,434	162	608	18,940	90	450	26,106	96	314	6
23 „ - -	46,627	145	608	18,645	144	456	25,223	87	282	7
30 „ - -	46,117	163	562	18,839	112	435	25,744	95	288	8
7 July - -	46,779	181	591	19,123	141	456	24,949	80	269	9
14 „ - -	45,808	207	600	19,226	170	517	24,434	107	295	10
21 „ - -	46,366	193	610	19,004	130	510	24,655	86	276	11
28 „ - -	44,968	168	582	19,182	159	473	24,139	97	282	12
4 August - -	42,903	186	581	18,142	123	436	25,206	118	300	13
11 „ - -	38,466	215	586	18,439	148	441	27,293	212	401	14
18 „ - -	35,816	206	599	17,938	139	435	26,635	178	537	15
25 „ -	36,683	192	630	18,795	128	444	25,782	127	418	16
1 September -	36,528	194	643	18,715	129	463	25,182	113	397	17
8 „ -	36,719	198	659	18,475	166	469	24,199	133	430	18
15 „ -	34,892	208	700	17,881	157	523	24,199	118	415	19
22 „ -	35,278	199	679	17,568	169	584	24,365	114	403	20
29 „ -	34,447	180	663	17,660	144	584	24,729	129	416	21
6 October - -	35,289	204	693	17,788	179	576	25,465	143	441	22
13 „ - -	36,230	187	692	17,974	148	580	25,784	122	451	23
20 „ - -	36,990	170	660	18,231	143	577	25,664	126	441	24
27 „ - -	37,767	200	709	18,331	252	627	26,165	103	431	25
3 November -	37,662	156	696	18,865	125	578	26,320	107	413	26
10 „ -	39,202	190	678	19,097	143	527	26,208	91	376	27
17 „ -	39,753	209	699	19,161	159	459	25,338	102	357	28
24 „ -	40,594	203	725	19,536	149	443	25,250	101	367	29
1 December -	40,415	151	686	19,924	120	429	25,126	110	374	30
8 „ -	39,974	145	618	19,477	160	472	25,000	105	360	31
15 „ -	39,523	129	572	19,317	115	470	24,607	73	330	32
22 „ -	38,272	87	452	18,868	124	454	22,777	55	280	33
29 „ -	37,627	124	458	18,756	136	444	23,288	77	282	34
TOTAL Admitted -	- -	5,927	- -	- -	4,865	- -	- -	3,680	- -	35
Average Strength and Number Remaining -	40,932	—	- -	18,752	—	- -	25,172	—	- -	36

	NUMBERS.			RATIOS.							
	All Unprotected Stations.			14 Protected Stations.		14 Unprotected Stations.		Remaining Unprotected Stations.		All Unprotected Stations.	
	Strength.	Admitted.	Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.
1	43,227	224	766	2·73	12·38	7·54	25·39	3·36	11·69	5·20	17·72
2	44,074	205	761	3·90	12·64	6·00	25·33	3·66	11·23	4·66	17·27
3	43,991	223	782	2·60	11·78	6·79	25·94	3·83	11·78	5·08	17·78
4	44,895	210	771	3·72	12·62	5·60	23·61	3·99	12·22	4·69	17·17
5	45,511	267	789	3·40	12·89	8·33	24·00	4·03	12·28	5·88	17·34
6	45,046	195	764	3·43	12·82	5·24	23·76	3·69	12·03	4·34	16·96
7	43,868	231	738	3·13	13·04	7·75	24·46	3·46	11·18	5·28	16·82
8	44,583	207	723	3·54	12·19	5·96	23·09	3·70	11·19	4·66	16·22
9	44,072	221	725	3·88	12·63	7·39	23·85	3·22	10·78	5·03	16·45
10	43,660	277	812	4·53	13·10	8·87	26·89	4·39	12·07	6·36	18·60
11	43,659	216	786	4·17	13·16	6·86	26·84	3·50	11·19	4·96	18·00
12	43,321	256	755	3·75	12·94	8·31	24·66	4·03	11·68	5·93	17·43
13	43,348	241	736	4·35	13·54	6·80	24·03	4·70	11·90	5·57	16·98
14	45,732	360	842	5·60	15·23	8·05	23·92	7·79	14·69	7·89	18·41
15	44,573	317	972	5·77	16·72	7·77	24·25	6·70	20·16	7·13	21·81
16	44,577	255	862	5·25	17·17	6·83	23·62	4·94	16·21	5·74	19·34
17	43,897	242	860	5·33	17·60	6·91	24·74	4·50	15·76	5·53	19·59
18	42,674	299	899	5·41	17·95	9·01	25·39	5·51	17·77	7·02	21·07
19	42,080	275	938	5·98	20·06	8·80	29·25	4·89	17·15	6·55	22·29
20	41,933	283	987	5·66	19·25	9·65	33·24	4·60	16·54	6·77	23·54
21	42,389	273	1,000	5·24	19·25	8·18	33·07	5·23	16·82	6·46	23·59
22	43,253	322	1,017	5 80	19·64	10·09	32·38	5·63	17·32	7·47	23·51
23	43,758	260	1,031	5·18	19·10	8·26	32·27	4·75	17·49	5·96	23 56
24	43,895	269	1,018	4·61	17·84	7·87	31·65	4·92	17·18	6·15	23·19
25	44,496	355	1,058	5·31	18·77	13·78	34·20	3·95	16·47	8·00	23·78
26	45,185	232	991	4·15	18·48	6·64	30·64	4·08	15·69	5·15	21·93
27	45,305	234	903	4·86	17·29	7·51	27·60	3·48	14·35	5·18	19·93
28	44,499	261	816	5·27	17·58	8·32	23·95	4·04	14·09	5·88	18·34
29	44,786	250	810	5·02	17·86	7·65	22·68	4·01	14·53	5·60	18·09
30	45,050	230	803	3·75	16·97	6·04	21·53	4·39	14·88	5·12	17·82
31	44,477	265	832	3·64	15·46	8·24	24·23	4·21	14·40	5·97	18·71
32	43,924	188	800	3·27	14·47	5·97	24·33	2·98	13·41	4·29	18·21
33	41,645	179	734	2·28	11·81	6·59	24·06	2·42	12·29	4·31	17·62
34	42,044	213	726	3·30	12·17	7·27	23·67	3·32	12·11	5·08	17·27
35	- -	8,535	- -	144·80	- -	259·44	- -	146·19	- -	194·31	—
36	43,924	—	- -	—	15·22	—	26·17	—	14·16	- -	19·29

YEAR 1881.	NUMBERS - - - - - -									
	14 Protected Stations.			14 Unprotected Stations.			Remaining Unprotected Stations.			
Week ending	Strength.	Admitted.	Remaining.	Strength.	Admitted.	Remaining.	Strength.	Admitted.	Remaining.	
13 May - -	39,970	170	620	19,765	119	437	24,459	93	288	1
20 „ - -	41,221	128	565	19,471	127	446	24,483	89	284	2
27 „ - -	41,873	154	573	19,202	121	445	24,259	102	277	3
3 June - -	42,035	200	588	18,839	113	439	24,840	118	314	4
10 „ - -	42,044	182	615	19,289	118	433	25,240	126	334	5
17 „ - -	42,191	169	632	19,106	123	425	25,543	110	340	6
24 „ - -	42,504	169	640	18,327	123	423	25,649	122	360	7
1 July - -	41,014	170	606	18,831	139	440	26,703	107	368	8
8 „ - -	40,419	176	609	19,398	111	428	26,781	98	343	9
15 „ - -	39,775	171	604	19,722	139	440	26,771	123	359	10
22 „ - -	39,754	160	592	19,748	160	460	27,350	151	383	11
29 „ - -	39,793	162	577	19,946	149	481	27,422	170	405	12
5 August - -	40,550	186	594	20,053	138	484	27,656	111	394	13
12 „ - -	40,741	180	622	19,825	144	508	27,521	136	409	14
19 „ - -	41,141	172	644	19,868	144	529	26,982	136	415	15
26 „ - -	42,396	220	677	20,065	170	561	26,605	130	386	16
2 September -	42,792	217	683	19,704	174	570	26,512	125	384	17
9 „ -	43,262	218	702	19,306	147	569	26,754	117	368	18
16 „ -	42,936	181	672	18,975	133	546	26,975	110	384	19
23 „ -	42,795	210	675	18,737	147	557	26,479	126	376	20
30 „ -	42,414	171	646	18,843	147	531	25,969	106	397	21
7 October - -	41,934	172	608	19,006	134	524	25,601	117	388	22
14 „ - -	41,553	176	595	19,074	124	527	25,385	120	379	23
21 „ - -	40,310	123	546	19,173	135	512	25,713	122	375	24
28 „ - -	40,342	160	539	19,610	133	495	25,067	116	365	25
4 November -	40,352	145	534	19,885	157	518	24,988	108	356	26
11 „ -	39,559	188	578	19,966	140	521	24,967	108	354	27
18 „ -	40,352	174	585	19,879	171	548	25,226	128	382	28
25 „ -	40,331	132	550	20,321	182	576	25,185	115	393	29
2 December -	40,641	149	533	20,015	158	574	25,257	106	382	30
9 „ -	40,517	149	529	20,466	145	534	25,174	134	368	31
16 „ -	40,540	123	515	20,579	156	534	24,161	118	372	32
23 „ -	40,419	111	465	20,005	76	437	24,584	80	333	33
30 „ -	38,985	132	463	19,760	149	451	24,575	95	318	34
TOTAL Admitted	- -	5,705	- -	- -	4,746	- -	- -	3,972	- -	35
Average Strength and Number Remaining.	41,102	—	- -	19,552	—	- -	25,790	—	- -	36

	NUMBERS.			RATIOS.							
	All Unprotected Stations.			14 Protected Stations.		14 Unprotected Stations.		Remaining Unprotected Stations.		All Unprotected Stations.	
	Strength.	Admitted.	Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.
1	44,224	212	725	4·27	15·51	6·04	22·11	3·81	11·77	4·81	16·39
2	43,954	216	730	3·11	13·71	6·54	22·91	3·65	11·60	4·93	16·61
3	43,461	223	722	3·69	13·68	6·32	23·17	4·22	11·42	5·15	16·61
4	43,679	231	753	4·77	13·99	6·02	23·30	4·76	12·64	5·30	17·24
5	44,538	244	767	4·34	14·63	6·14	22·45	5·00	13·23	5·49	17·22
6	44,649	233	773	4·02	14·98	6·46	22·24	4·32	13·62	5·23	17·31
7	43,976	245	783	3·99	15·06	6·73	23·08	4·77	14·04	5·59	17·80
8	45,534	246	808	4·16	14·78	7·40	23·37	4·02	13·78	5·42	17·74
9	46,179	209	771	4·37	15·07	5·74	22·06	3·67	12·81	4·54	16·70
10	46,493	261	799	4·31	15·18	7·07	22·31	4·57	13·41	5·63	17·18
11	47,098	311	843	4·04	14·89	8·13	23·29	5·54	14·00	6·62	17·90
12	47,368	319	886	4·08	14·50	7·49	24·11	6·22	14·77	6·76	18·70
13	47,739	249	878	4·60	14·65	6·90	24·14	4·02	14·23	5·23	18·39
14	47,346	280	917	4·43	15·27	7·28	25·62	4·96	14·86	5·93	19·37
15	46,850	280	944	4·19	15·65	7·27	26·63	5·05	15·38	5·99	20·15
16	46,670	300	947	5·20	15·97	8·50	27·96	4·90	14·51	6·45	20·29
17	46,216	299	954	5·09	15·96	8·86	28·93	4·73	14·48	6·49	20·64
18	46,060	264	937	5·05	16·23	7·64	29·47	4·38	13·75	5·75	20·34
19	45,950	243	930	4·23	15·65	7·03	28·77	4·09	14·23	5·30	20·24
20	45,216	273	933	4·92	15·77	7·87	29·73	4·77	14·20	6·05	20·63
21	44,812	253	928	4·04	15·23	7·82	28·18	4·09	15·29	5·66	20·71
22	44,607	251	912	4·11	14·50	7·07	27·57	4·58	15·16	5·64	20·44
23	44,459	244	906	4·25	14·32	6·52	27·63	4·74	14·93	5·50	20·38
24	44,886	257	887	3·06	13·54	7·06	26·70	4·76	14·58	5·74	19·76
25	44,677	249	860	3·98	13·36	6·80	25·24	4·64	14·56	5·59	19·25
26	44,873	265	874	3·60	13·23	7·92	26·05	4·34	14·25	5·92	19·48
27	44,933	248	875	4·77	14·61	7·03	26·09	4·34	14·13	5·54	19·47
28	45,105	299	930	4·32	14·50	8·63	27·57	5·09	15·14	6·65	20·62
29	45,506	297	969	3·28	13·64	8·98	28·34	4·58	15·60	6·55	21·29
30	45,272	264	956	3·68	13·11	7·92	28·68	4·21	15·12	5·85	21·12
31	45,640	279	902	3·69	13·06	7·10	26·09	5·34	14·62	6·13	19·76
32	44,740	274	906	3·17	12·70	7·60	25·95	4·00	15·40	6·14	20·25
33	44,589	156	770	2·75	11·50	3·81	21·84	3·26	13·54	3·51	17·27
34	44,335	244	769	3·40	11·88	7·56	22·82	3·88	12·94	5·52	17·34
35	. .	8,718	. .	138·80	. .	242·74	. .	154·01	. .	192·27	—
36	45,342	—	. .	—	14·44	—	25·43	—	14·07	. .	18·97

YEAR 1880.	NUMBERS - - - - - -									
	14 Protected Stations.			14 Unprotected Stations.			Remaining Unprotected Stations.			
Week ending	Strength.	Admitted.	Remaining.	Strength.	Admitted.	Remaining.	Strength.	Admitted.	Remaining.	
14 May - - -	46,519	197	617	18,122	114	338	20,068	80	208	1
21 „ - - -	46,998	231	676	18,397	92	333	19,956	85	224	2
28 „ - - -	48,111	185	645	18,334	110	352	19,968	90	244	3
4 June - -	50,019	240	683	17,551	82	319	19,762	72	251	4
11 „ - -	49,769	226	700	17,350	103	324	19,903	88	278	5
18 „ - -	50,149	196	706	17,643	116	353	20,074	88	265	6
25 „ - -	50,236	199	707	17,457	111	351	20,633	76	258	7
2 July - - -	50,695	227	713	17,075	111	335	20,520	124	278	8
9 „ - - -	50,894	228	750	16,492	124	363	21,292	104	261	9
16 „ - - -	50,851	208	778	16,084	113	377	21,411	90	296	10
23 „ - - -	51,056	228	793	16,198	119	389	20,976	95	283	11
30 „ - - -	50,606	197	729	16,722	119	391	21,628	97	293	12
6 August - -	49,242	213	677	17,749	150	438	22,148	109	307	13
13 „ - -	45,768	219	694	17,572	143	452	22,781	96	297	14
20 „ - -	43,090	222	709	18,383	174	491	23,270	138	341	15
27 „ - -	41,370	222	752	18,487	134	471	23,936	140	357	16
3 September -	41,878	284	845	18,893	179	488	23,784	98	351	17
10 „ -	42,455	211	857	18,545	140	489	23,963	147	372	18
17 „ -	42,009	243	800	18,299	169	534	24,115	125	415	19
24 „ -	42,859	193	822	18,186	170	548	23,860	125	398	20
1 October - -	42,230	186	774	18,350	163	534	23,780	119	316	21
8 „ - -	41,615	207	739	18,418	169	551	23,838	98	356	22
15 „ - -	41,548	165	744	18,427	165	558	24,057	122	367	23
22 „ - -	41,195	155	691	18,524	159	550	23,809	122	335	24
29 „ - -	40,940	189	683	18,757	136	532	23,855	104	367	25
5 November -	39,803	170	677	18,575	132	517	23,694	130	370	26
12 „ -	39,571	163	672	18,855	125	490	24,201	91	365	27
19 „ -	39,147	184	689	18,946	164	535	24,534	121	366	28
26 „ -	39,170	151	645	18,848	134	502	24,288	108	361	29
3 December -	39,980	195	677	18,936	157	513	24,540	102	352	30
10 „ -	39,805	173	637	19,311	127	512	24,204	108	336	31
17 „ -	39,698	153	607	19,037	110	468	24,297	113	334	32
24 „ -	37,804	117	533	19,729	92	414	24,032	62	264	33
31 „ -	37,692	221	610	19,775	152	474	23,815	34	298	34
TOTAL Admitted -	- -	6,798	- -	- -	4,558	- -	- -	3,501	- -	35
Average Strength and Number Remaining -	44,258	—	- -	18,177	—	- -	22,676	—	- -	36

	NUMBERS.			RATIOS.							
	All Unprotected Stations.			14 Protected Stations.		14 Unprotected Stations.		Remaining Unprotected Stations.		All Unprotected Stations.	
	Strength.	Admitted.	Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.	Ratio per 1,000 Admitted.	Ratio per 1,000 Remaining.
1	38,190	194	546	4·25	13·26	6·31	18·65	4·00	10·36	5·09	14·30
2	38,353	177	557	4·93	14·38	5·02	18·10	4·27	11·22	4·63	14·52
3	38,302	200	596	3·86	13·41	6·02	19·20	4·52	12·22	5·24	15·56
4	37,313	154	570	4·81	13·65	4·69	18·18	3·65	12·70	4·14	15·28
5	37,253	191	602	4·55	14·06	5·95	18·67	4·44	13·97	5·14	16·16
6	37,717	204	618	3·92	14·08	6·59	20·01	4·40	13·20	5·42	16·38
7	38,090	187	609	3·97	14·07	6·38	20·11	3·69	12·50	4·92	15·99
8	37,595	235	613	4·49	14·06	6·52	19·62	6·06	13·55	6·27	16·30
9	37,784	228	624	4·49	14·74	7·54	22·01	4·90	12·26	6·05	16·51
10	37,495	203	673	4·10	15·30	7·04	23·44	4·22	13·82	5·43	17·95
11	37,174	214	672	4·48	15·53	7·37	24·02	4·54	13·49	5·77	18·08
12	38,350	216	684	3·90	14·41	7·14	23·38	4·50	13·55	5·65	17·84
13	39,897	259	745	4·34	13·75	8·47	24·68	4·94	13·86	6·51	18·67
14	40,353	239	749	4·80	15·16	8·16	25·72	4·23	13·04	5·93	18·56
15	41,653	312	832	5·17	16·45	9·49	26·71	5·95	14·65	7·51	19·97
16	42,423	274	828	5·38	18·18	7·27	25·48	5·87	14·91	6·48	19·52
17	42,677	277	839	6·80	20·18	9·50	25·83	4·13	14·76	6·51	19·66
18	42,508	287	861	4·98	20·19	7·57	26·37	6·15	15·52	6·77	20·25
19	42,414	294	949	5·80	19·04	9·26	29·18	5·20	17·21	6·95	22·37
20	42,046	296	946	4·52	19·18	9·37	30·13	5·25	16·68	7·03	22·50
21	42,130	282	850	4·42	18·33	8·91	29·10	5·02	13·29	6·71	20·17
22	42,256	267	907	4·99	17·76	9·20	29·92	4·12	14·93	6·34	21·46
23	42,484	287	925	3·98	17·91	8·98	30·28	5·09	15·26	6·78	21·77
24	42,333	281	885	3·77	16·77	8·61	29·69	5·14	14·07	6·66	20·91
25	42,612	240	899	4·63	16·68	7·27	28·36	4·37	15·38	5·65	21·10
26	42,269	262	887	4·28	17·01	7·13	27·83	5·50	15·62	6·22	20·98
27	43,056	216	855	4·13	16·98	6·65	25·99	3·77	15·08	5·03	19·86
28	43,480	285	901	4·71	17·60	8·68	28·24	4·95	14·92	6·57	20·72
29	43,136	242	863	3·87	16·47	7·13	26·63	4·46	14·86	5·63	20·01
30	45,476	259	865	4·89	16·93	8·31	27·09	4·17	14·34	5·97	19·90
31	43,515	235	848	4·36	16·00	6·60	26·51	4·48	13·88	5·42	19·49
32	43,334	223	802	3·87	15·29	5·79	24·58	4·66	13·75	5·16	18·51
33	43,761	154	678	3·10	14·10	4·68	20·98	2·59	10·98	3·53	15·49
34	43,590	186	772	5·88	16·18	7·71	23·97	1·43	12·51	4·28	17·71
35	- -	8,059	- -	153·60	- -	259·75	- -	154·39	- -	197·27	—
36	40,853	—	- -	—	15·97	—	24·73	—	13·96	- -	18·75

ABSTRACT No. II.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into stationed at GIBRALTAR during the year 1883, with the Ratios per

Orders.	Average Strength, 4,737.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small Pox	3	—	—	—	—	—	·24
	Eruptive Fevers { Other	1	—	—	—	—	—	·04
	Continued „ { Enteric -	12	5	—	5	1	—	2·04
	Continued „ { Other -	800	4	—	4	11	—	47·33
	Yellow Fever - -	—	—	—	—	—	—	—
	Paroxysmal Fevers - -	5	—	—	—	—	—	·15
	Cholera - - -	—	—	—	—	—	—	—
	Other Diseases - -	6	1	—	1	—	—	·63
	Total - -	827	10	—	10	12	—	50·43
	Constitutional Group.							
	Rheumatism - -	185	—	—	—	25	1	25·81
	Primary Syphilis - -	777	—	—	—	—	—	72·51
	Secondary „ - -	88	—	—	—	7	—	7·03
	Tubercular diseases - -	11	2	2	4	5	3	1·96
	Scurvy and Purpura -	1	—	—	—	—	—	·04
	Other Diseases - -	3	—	—	—	—	—	·29
	Total - -	1,065	2	2	4	37	4	107·64
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	24	—	—	—	11	2	2·38
2	Eye - - - - -	56	—	—	—	4	4	3·23
3	Ear - - - - -	22	—	—	—	4	3	1·51
4	Nose - - -	2	—	—	—	—	—	·02
5	Circulatory System - -	35	3	—	3	5	8	2·88
6	Absorbent „ - -	85	—	—	—	—	—	6·54
7	Ductless Glands - -	3	—	—	—	1	1	·80
8	Respiratory System - -	132	1	—	1	5	2	11·62
9	Digestive „ - -	445	4	—	4	7	1	18·47
10	Urinary System { Gonorrhœa -	550	—	—	—	—	—	37·61
	Urinary System { Sequelæ of Gonorr.	35	—	—	—	—	—	1·95
	Urinary System { Other diseases -	75	—	—	—	6	3	4·59
11	Generative System - -	70	—	—	—	1	—	4·18
12	Organs of Locomotion -	18	—	—	—	3	4	2·19
13	Cellular Tissue - -	101	—	—	—	—	—	4·13
14	Cutaneous System - -	219	—	—	—	—	—	10·99
	III.—*Debility* -	53	—	—	—	12	4	3·31
	IV.—*Poisons* -	27	—	—	—	—	—	·91
	V.—*Injuries.*							
1	General - - -	—	3	—	3	—	—	—
2	Local - - -	387	2	—	2	3	2	16·48
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	9	—	—	—	—	—	·37
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total -	4,240	25	2	27	111	38	292·28
	*Average of 10 years, 1873–82	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Ratio per 1,000 from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
·6	—	—	—	·05	·1	—	—	—	·02
·2	—	—	—	·01	1·0	—	—	—	·06
2·5	1·05	·21	—	·43	2·8	1·22	·06	—	·26
168·9	·85	2·32	—	9·99	144·9	·78	1·44	—	8·66
—	—	—	—	—	—	—	—	—	—
1·1	—	—	—	·03	74·3	·83	8·72	·72	2·73
—	—	—	—	—	—	—	—	—	—
1·3	·21	—	—	·14	1·6	·06	—	—	·08
174·6	2·11	2·53	—	10·65	224·7	2·89	10·22	·72	11·80
39·1	—	5·28	·21	5·45	51·2	—	3·11	·67	3·86
164·0	—	—	—	15·31	67·7	—	—	—	6·23
18·6	—	1·48	—	1·49	10·2	—	·11	·28	·83
2·3	·85	1·05	·63	·42	5·4	1·05	3·06	2·44	·74
·2	—	—	—	·01	·4	—	—	—	·03
·6	—	—	—	·06	·5	·22	·11	·11	·07
224·8	·85	7·81	·85	22·73	135·4	1·27	6·39	3·50	11·76
5·1	—	2·32	·42	·50	5·0	·17	1·44	·56	·57
11·8	—	·85	·85	·68	13·1	—	1·22	·89	·84
4·6	—	·85	·63	·32	4·6	—	·33	·44	·25
·4	—	—	—	—	·6	—	—	—	·03
7·4	·63	1·05	1·69	·61	7·5	·83	3·44	2·83	·66
18·0	—	—	—	1·38	22·0	—	·28	·11	2·18
·6	—	·21	·21	·17	·1	—	—	—	—
27·9	·21	1·05	·42	2·45	86·6	·78	2·39	·89	2·70
94·0	·85	1·48	·21	3·90	90·6	·39	1·72	1·39	3·84
116·1	—	—	—	7·94	75·7	—	—	—	4·58
7·4	—	—	—	·41	5·4	—	—	·05	·33
15·8	—	1·27	·63	·97	8·2	·17	·50	·22	·59
14·8	—	·21	—	·88	14·9	—	·06	·11	1·02
3·8	—	·63	·85	·46	5·0	—	·78	·89	·40
21·3	—	—	—	·87	25·7	—	·28	·17	1·33
46·2	—	—	—	2·32	42·2	—	·17	·11	1·98
11·2	—	2·53	·85	·70	11·0	—	4·55	1·56	·85
5·7	—	—	—	·19	5·8	·06	—	—	·18
—	·63	—	—	—	·1	·22	—	—	·01
81·7	·42	·63	·42	3·48	78·8	·50	1·17	1·06	3·49
—	—	—	—	—	—	—	—	—	—
1·9	—	—	—	·08	1·2	—	—	—	·06
—	—	—	—	—	—	—	—	—	—
895·1	5·70	23·43	8·02	61·69	814·2	7·28	34·94	15·00	49·43
706·7	7·03	28·56	14·39	41·02	—	—	—	—	—

to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. III.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into
stationed at MALTA during the year 1883, with the Ratios per

Orders.	Average Strength, 4,611.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	1	—	—	—	—	—	·04
	Eruptive Fevers { Other -	—	—	—	—	—	—	—
	Continued „ { Enteric -	120	17	—	17	—	—	27·10
	Continued „ { Other -	444	—	—	—	—	—	24·16
	Yellow Fever - -	—	—	—	—	—	—	—
	Paroxysmal Fevers - -	18	—	—	—	1	1	1·40
	Cholera - - -	3	—	—	—	—	—	·12
	Other Diseases - -	11	2	—	2	—	—	1·22
	Total - -	597	19	—	19	1	1	54·04
	Constitutional Group.							
	Rheumatism - -	122	—	—	—	7	1	9·11
	Primary Syphilis - -	287	1	—	1	—	—	25·72
	Secondary „ - -	40	—	—	—	2	1	3·61
	Tubercular diseases - -	27	2	1	3	16	10	4 86
	Scurvy and Purpura -	1	—	—	—	—	—	·15
	Other Diseases - -	10	—	—	—	1	—	1·06
	Total - -	487	3	1	4	26	12	44·51
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	61	2	—	2	18	3	5·28
2	Eye - - - - -	63	—	—	—	5	2	3·51
3	Ear - - - - -	54	—	—	—	2	1	4·41
4	Nose - - - - -	—	—	—	—	—	—	—
5	Circulatory System - -	109	1	—	1	23	8	11·49
6	Absorbent „ - -	25	—	—	—	—	—	2·60
7	Ductless glands - -	—	—	—	—	—	—	—
8	Respiratory System - -	150	3	—	3	3	1	12·56
9	Digestive „ - -	524	4	—	4	6	2	24·08
10	Urinary System { Gonorrhœa -	274	—	—	—	—	—	17·93
	Urinary System { Sequelæ of Gonorr.	35	—	—	—	—	—	2·00
	Urinary System { Other diseases -	65	—	—	—	—	—	3·20
11	Generative System - -	44	—	—	—	—	—	2·43
12	Organs of Locomotion -	16	—	—	—	1	1	1·47
13	Cellular Tissue - -	112	—	—	—	—	—	4·18
14	Cutaneous System · -	313	—	—	—	2	—	18·44
	III.—*Debility* -	80	—	—	—	8	1	8·26
	IV.—*Poisons* -	32	—	—	—	—	—	·88
	V.—*Injuries.*							
1	General - - -	5	1	—	1	—	—	·34
2	Local - - -	435	6	—	6	3	2	23·48
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	45	—	—	—	—	—	1·51
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total -	3,526	39	1	40	98	34	246·60
	Average of 10 years, 1873–82	—	—	—	—	—	—	—

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• The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
·2	—	—	—	·01	·1	·05	—	—	·01
—	—	—	—	—	4·9	—	—	—	·18
26·0	3·69	—	—	5·88	12·1	2·94	·16	—	2·03
96·3	—	—	—	5·24	160·1	·16	·64	—	6·62
—	—	—	—	—	—	—	—	—	—
3·9	—	·22	·22	·30	8·9	·43	·27	·37	·81
·7	—	—	—	·03	—	—	—	—	—
2·4	·43	—	—	·26	6·2	—	—	—	·30
129·5	4·12	·22	·22	11·72	192·3	3·58	1·07	·37	9·95
26·5	—	1·52	·22	1·98	33·9	·11	1·82	·53	2·64
62·2	·22	—	—	5·58	29·5	—	—	—	2·45
8·7	—	·48	·22	·78	10·0	—	·69	·43	·83
5·8	·65	3·47	2·16	1·05	8·0	1·76	3·52	2·19	1·35
·2	—	—	—	·03	·2	·05	—	—	·04
2·2	—	·22	—	·23	1·9	·11	·16	·16	·21
105·6	·87	5·64	2·60	9·65	83·5	2·03	6·19	3·31	7·52
13·2	·48	8·90	·65	1·15	12·2	·59	4·01	·64	1·88
13·7	—	1·08	·43	·76	21·2	—	1·60	1·01	1·36
11·7	—	·48	·22	·96	10·4	—	1·55	1·28	·92
—	—	—	—	—	·8	—	—	—	·04
23·6	·22	4·98	1·73	2·49	11·4	·75	2·94	2·35	1·21
5·4	—	—	—	·56	4·4	—	—	—	·35
—	—	—	—	—	·3	—	—	—	·03
32·5	·65	·65	·22	2·72	40·6	·75	2·46	1·07	3·45
113·7	·87	1·30	·43	5·22	138·3	·48	1·76	·69	5·16
59·4	—	—	—	3·89	67·6	—	—	—	4·02
7·6	—	—	—	·48	9·3	—	·16	·16	·69
14·1	—	—	—	·69	9·1	—	·16	·11	·52
9·5	—	—	—	·58	10·4	—	·05	·11	·75
3·5	—	·22	·22	·32	6·7	—	·96	·64	·75
24·3	—	—	—	·91	28·5	—	·21	—	1·40
67·9	—	·43	—	4·00	75·9	—	·69	—	4·12
17·8	—	1·73	·22	1·79	19·2	·05	4·43	1·55	2·02
6·9	—	—	—	·19	5·5	·16	—	—	·12
1·1	·22	—	—	·07	·9	·64	—	—	·05
94·4	1·30	·65	·43	5·09	108·7	·64	·59	·59	4·98
—	—	—	—	—	—	—	—	—	—
9·8	—	—	—	·33	2·2	—	—	—	·06
—	—	—	—	—	—	—	—	—	—
764·7	8·68	21·25	7·37	53·48	859·4	9·67	28·84	13·88	50·75
864·6	9·66	30·45	16·88	46·56	—	—	—	—	—

to 1883 will be given in the Report for 1884 those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. IIIA.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into MALTA FENCIBLE ARTILLERY TROOPS stationed at MALTA during the Year 1883,

Orders.	Average Strength, 344.		Deaths.			Invalids.		
	Diseases.	Admissions into Hospital.	In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	Average Number Constantly Sick.
	I.—General Diseases.							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Others	—	—	—	—	—	—	—
	Continued „ { Enteric	—	—	—	—	—	—	—
	Continued „ { Others	40	—	—	—	—	—	·83
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	11	—	—	—	—	—	·44
	Cholera	—	—	—	—	—	—	—
	Other diseases	—	—	—	—	—	—	—
	Total	51	—	—	—	—	—	1·27
	Constitutional Group.							
	Rheumatism	4	—	—	—	—	—	·43
	Primary Syphilis	—	—	—	—	—	—	·02
	Secondary „	2	—	—	—	—	—	·31
	Tubercular diseases	3	—	—	—	—	2	·31
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other diseases	5	—	—	—	—	—	·17
	Total	14	—	—	—	—	—	1·24
	II.—Local Diseases.							
	Diseases of the—							
1	Nervous System	5	2	—	2	—	1	·14
2	Eye	6	—	—	—	—	—	·12
3	Ear	4	—	—	—	—	—	·14
4	Nose	—	—	—	—	—	—	—
5	Circulatory System	4	—	—	—	—	2	·28
6	Absorbent „	1	—	—	—	—	—	·03
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	27	—	—	—	—	—	1·19
9	Digestive „	45	1	—	1	—	—	1·13
10	Urinary System { Gonorrhœa	15	—	—	—	—	—	1·33
	Urinary System { Sequelæ of Gonorr.	—	—	—	—	—	—	—
	Urinary System { Other diseases	1	—	—	—	—	—	·01
11	Generative System	3	—	—	—	—	—	·39
12	Organs of Locomotion	2	—	—	—	—	1	·17
13	Cellular Tissue	3	—	—	—	—	—	·09
14	Cutaneous System	14	—	—	—	—	—	·29
	III.—*Debility*	6	—	—	—	—	2	·26
	IV.—*Poisons*	—	—	—	—	—	—	—
	V.—*Injuries.*							
1	General	—	—	—	—	—	—	—
2	Local	33	—	—	—	—	—	·78
3	In action	—	—	—	—	—	—	—
	No appreciable disease	—	—	—	—	—	—	—
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total	234	3	—	3	—	8	8·86
	Average of 10 years, 1873–82	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the ROYAL with the Ratios per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	3·0	—	—	—	·11
—	—	—	—	—	1·5	—	—	—	·10
116·3	—	—	—	2·41	124·7	—	—	—	2·64
—	—	—	—	—	—	—	—	—	—
32·0	—	—	—	1·28	13·3	1·48	—	—	·91
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·7	—	—	—	·01
148·3	—	—	—	3·69	143·2	1·48	—	—	3·77
11·6	—	—	—	1·25	21·4	—	—	2·95	·81
—	—	—	—	·06	8·9	—	—	—	·56
5·8	—	—	—	·90	6·7	—	—	—	·46
8·7	—	—	5·81	·90	12·5	3·69	—	2·95	1·62
—	—	—	—	—	—	—	—	—	—
14·5	—	—	—	·49	4·4	—	—	—	·29
40·7	—	—	5·81	3·60	53·9	3·69	—	5·90	3·74
14·5	5·81	—	2·91	·41	3·7	—	—	2·21	·56
17·5	—	—	—	·35	22·1	—	—	2·95	·42
11·6	—	—	—	·41	2·2	—	—	—	·02
—	—	—	—	—	—	—	—	—	—
11·6	—	—	5·81	·81	7·4	1·48	—	4·43	·69
2·9	—	—	—	·09	3·0	—	—	—	·14
—	—	—	—	—	·7	—	—	—	·05
78·5	—	—	—	3·46	64·2	·74	—	1·48	3·45
130·8	2·91	—	—	3·29	72·3	—	—	2·95	2·26
43·6	—	—	—	3·87	28·0	—	—	—	1·56
—	—	—	—	—	1·5	—	—	—	·08
2·9	—	—	—	·03	·7	—	—	—	·01
8·7	—	—	—	1·13	5·2	—	—	—	·18
5·8	—	—	2·91	·49	1·5	—	—	—	·07
8·7	—	—	—	·26	5·9	—	—	—	·24
40·7	—	—	—	·84	71·6	—	—	1·48	2·18
17·5	—	—	5·81	·76	15·5	—	—	5·90	·87
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	·74	—	—	—
95·9	—	—	—	2·27	96·7	—	—	—	2·42
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·7	—	—	—	·03
—	—	—	—	—	—	—	—	—	—
680·2	8·72	—	23·25	25·76	600·0	8·12	—	27·31	22·64
672·5	6·64	—	23·25	26·16	—	—	—	—	—

to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. IV.—Table showing the Average Strength, Admissions into stationed at Cyprus during the Year 1883, with the Ratios per

Orders.	Average Strength, 512.		Deaths.			Invalids.		
	Diseases.	Admissions into Hospital.	In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	Average Number Constantly Sick.
	I.—General Diseases.							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other	—	—	—	—	—	—	—
	Continued „ { Enteric	—	—	—	—	—	—	·61
	Continued „ { Other	31	—	—	—	—	—	·86
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	16	—	—	—	—	—	·54
	Cholera	—	—	—	—	—	—	—
	Other diseases	—	—	—	—	—	—	—
	Total	47	—	—	—	—	—	2·01
	Constitutional Group.							
	Rheumatism	6	—	—	—	—	—	·42
	Primary Syphilis	44	—	—	—	—	—	3·21
	Secondary „	4	—	—	—	1	—	·87
	Tubercular diseases	1	—	—	—	1	—	·05
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other diseases	—	—	—	—	—	—	—
	Total	55	—	—	—	2	—	4·55
	II.—Local Diseases.							
	Diseases of the—							
1	Nervous System	3	1	—	1	2	—	·40
2	Eye	1	—	—	—	1	—	·07
3	Ear	—	—	—	—	—	—	—
4	Nose	—	—	—	—	—	—	—
5	Circulatory System	1	—	—	—	—	—	·03
6	Absorbent „	4	—	—	—	—	—	·26
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	4	—	—	—	—	—	·32
9	Digestive „	19	—	—	—	2	—	·70
10	Urinary System { Gonorrhœa	24	—	—	—	—	—	1·00
	Urinary System { Sequelæ of Gonorr.	3	—	—	—	—	—	·10
	Urinary System { Other diseases	3	—	—	—	—	—	·15
11	Generative System	2	—	—	—	—	—	·07
12	Organs of Locomotion	2	—	—	—	—	—	·14
13	Cellular Tissue	9	—	—	—	—	—	·43
14	Cutaneous System	39	—	—	—	—	—	1·51
	III.—*Debility*	3	—	—	—	—	—	·92
	IV.—*Poisons*	1	1	—	1	—	—	·01
	V.—*Injuries.*							
1	General	2	—	—	—	—	—	·08
2	Local	37	—	—	—	1	—	1·25
3	In action	—	—	—	—	—	—	—
	No appreciable disease	—	—	—	—	—	—	—
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total	259	2	—	2	8	—	14·00
	Average of 5 years, 1878–82	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS
1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·5	—	—	—	·01
—	—	—	—	1·19	11·0	1·43	·48	—	1·48
60·6	—	—	—	1·68	62·4	—	—	—	1·39
—	—	—	—	—	—	—	—	—	—
31·2	—	—	—	1·05	278·8	3·34	6·67	1·91	8·35
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
91·8	—	—	—	3·92	352·7	4·77	7·15	1·91	11·23
11·7	—	—	—	·82	31·9	—	1·91	·48	1·89
85·9	—	—	—	6·27	67·7	—	—	—	4·89
7·8	—	1·95	—	1·70	48·1	—	·95	·48	3·29
2·0	—	1·95	—	·10	1·9	—	—	2·38	·15
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	1·0	—	·48	—	·23
107·4	—	3·91	—	8·89	150·6	—	3·34	3·34	10·45
5·8	1·95	3·91	—	·78	10·5	·48	·48	·48	·46
2·0	—	1·95	—	·14	28·1	—	·95	·95	1·05
—	—	—	—	—	3·3	—	—	—	·23
—	—	—	—	—	—	—	—	—	—
2·0	—	—	—	·06	8·6	·48	1·91	2·38	·72
7·8	—	—	—	·51	4·8	—	—	—	·42
—	—	—	—	—	—	—	—	—	—
7·8	—	—	—	·62	33·4	·48	1·43	·95	1·40
37·1	—	3·91	—	1·37	174·9	2·38	1·91	1·91	5·69
46·9	—	—	—	1·95	73·3	—	—	—	4·63
5·8	—	—	—	·19	13·8	—	—	—	1·04
5·8	—	—	—	·29	2·9	·48	—	·48	·09
3·9	—	—	—	·14	10·0	—	—	—	·56
3·9	—	—	—	·27	4·8	—	·48	·48	·17
17·6	—	—	—	·84	19·1	—	·95	·48	1·02
76·2	—	—	—	2·95	64·8	—	·95	—	2·34
5·8	—	—	—	1·80	16·7	—	4·29	6·67	1·21
2·0	1·95	—	—	·02	7·6	·95	—	—	·18
3·9	—	—	—	·16	—	·48	—	—	—
72·3	—	1·95	—	2·44	105·4	·95	·95	1·43	4·46
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	1·0	--	—	—	·05
—	—	—	—	—	—	--	—	—	—
505·8	3·91	15·63	—	27·34	1086·3	11·44	24·79	21·45	47·40
2075·5	20·05	62·50	21·39	99·60	—	—	—	—	—

to 1888 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. V.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into
stationed in CANADA during the Year 1883, with the Ratios per

Orders.	Average Strength, 1,785.		Deaths.			Invalids.		
	Diseases.	Admissions into Hospital.	In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other	5	—	—	—	—	—	·42
	Continued „ { Enteric	2	—	—	—	—	—	·17
	Continued „ { Other	21	—	—	—	—	—	·84
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	4	—	—	—	—	—	·16
	Cholera	—	—	—	—	—	—	—
	Other Diseases	8	1	—	1	—	—	·51
	Total	40	1	—	1	—	—	2·10
	Constitutional Group.							
	Rheumatism	104	—	—	—	8	1	6·44
	Primary Syphilis	80	—	—	—	—	—	6·40
	Secondary „	62	—	—	—	4	1	3·15
	Tubercular diseases	21	2	1	3	13	7	2·48
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other Diseases	3	—	—	—	2	—	·21
	Total	270	2	1	3	27	9	18·68
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System	17	—	—	—	7	1	1·90
2	Eye	26	—	—	—	3	—	1·66
3	Ear	14	—	—	—	1	2	·83
4	Nose	3	—	—	—	1	—	·30
5	Circulatory System	20	—	—	—	5	5	1·59
6	Absorbent „	24	—	—	—	—	—	2·33
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	132	2	—	2	11	2	6·96
9	Digestive „	200	1	—	1	4	2	6·29
10	Urinary System { Gonorrhœa	184	—	—	—	—	—	10·79
	Urinary System { Sequelæ of Gonorr.	18	—	—	—	—	—	1·13
	Urinary System { Other diseases	18	—	—	—	3	—	1·27
11	Generative System	11	—	—	—	1	—	·60
12	Organs of Locomotion	7	—	—	—	3	1	·63
13	Cellular Tissue	16	—	—	—	—	—	·56
14	Cutaneous System	68	—	—	—	—	—	2·76
	III.—*Debility*	26	—	—	—	11	4	2·09
	IV.—*Poisons*	40	1	—	1	—	—	1·59
	V.—*Injuries.*							
1	General	—	—	—	—	—	—	—
2	Local	201	—	—	—	2	2	7·35
3	In action	—	—	—	—	—	—	—
	No appreciable disease	4	—	—	—	—	—	·03
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total	1,339	7	1	8	79	28	71·44
	Average of 10 years, 1873–82	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879 to

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
3·8	—	—	—	·24	3·3	—	—	—	·21
1·1	—	—	—	·09	·9	·14	—	—	·24
11·8	—	—	—	·47	5·9	—	—	—	
—	—	—	—	—	—	—	—	—	—
2·2	—	—	—	·09	65·7	—	4·02	—	1·74
—	—	—	—	—	—	—	—	—	—
4·5	·56	—	—	·29	3·4	—	—	—	·15
22·4	·56	—	—	1·18	79·2	·14	4·02	—	2·35
58·3	—	4·48	·56	3·61	39·8	·14	1·44	·72	3·18
44·8	—	—	—	3·58	89·4	—	—	—	7·28
34·7	—	2·24	·56	1·76	46·9	—	·86	1·44	3·36
11·8	1·68	7·28	3·92	1·39	8·3	1·58	3·02	4·02	1·23
—	—	—	—	—	—	—	—	—	—
1·7	—	1·12	—	·12	1·4	·14	·29	·14	·10
151·3	1·68	15·12	5·04	10·46	185·8	1·87	5·61	6·32	15·15
9·5	—	3·92	·56	1·06	8·6	·14	2·01	1·01	·86
14·6	—	1·68	—	·93	13·1	—	1·01	1·73	·84
7·8	—	·56	1·12	·47	4·6	—	·29	·72	·23
1·7	—	·56	—	·17	·4	—	—	·14	—
11·2	—	2·80	2·80	·89	18·0	1·44	4·31	5·32	1·18
13·4	—	—	—	1·31	22·7	—	—	·14	1·91
—	—	—	—	—	—	—	—	—	—
73·9	1·12	6·16	1·12	3·90	60·2	·72	2·15	·72	2·26
112·0	·56	2·24	1·12	3·52	110·5	·14	·58	1·29	2·94
103·1	—	—	—	6·05	78·9	—	—	—	4·13
10·1	—	—	—	·63	11·8	—	—	·29	·61
10·1	—	1·68	—	·71	15·9	·14	1·29	1·29	·61
6·2	—	·56	—	·34	11·9	—	·14	·29	·69
3·9	—	1·68	·56	·35	4·7	—	1·73	1·29	·46
9·0	—	—	—	·31	12·3	—	·14	—	·55
38·1	—	—	—	1·55	43·0	—	·14	·14	1·50
14·6	—	6·16	2·24	1·17	5·5	—	1·44	1·58	·41
22·4	·56	—	—	·89	21·0	·14	—	—	·69
—	—	—	—	—	—	·58	—	—	—
112·6	—	1·12	1·12	4·11	107·5	—	·86	·43	3·70
—	—	—	—	—	—	—	—	—	—
2·2	—	—	—	·02	1·7	—	—	—	·0
—	—	—	—	—	—	—	—	—	—
750·1	4·48	44·25	15·68	40·02	817·3	5·32	25·72	22·70	41·06
683·9	6·34	22·04	16·51	33·09	—	—	—	—	—

1883 will be given in the Report for 1883, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. VI.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into TROOPS stationed at BERMUDA during the Year 1883, with the Ratios

Orders.	Average Strength, 1,434. Diseases.	Admissions into Hospital.	Deaths. In the Command.	Deaths. Of Invalids.	Deaths. Total.	Invalids. Number sent Home.	Invalids. Number finally Discharged the Service.	Average Number constantly Sick.
	I. *General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other -	2	—	—	—	—	—	·16
	Continued „ - { Enteric -	10	3	—	3	—	—	1·44
	Continued „ - { Other -	34	—	—	—	—	—	2·42
	Yellow Fever - -	—	—	—	—	—	—	—
	Paroxysmal Fevers -	3	—	—	—	1	—	·71
	Cholera - - -	—	—	—	—	—	—	—
	Other diseases - -	1	—	—	—	—	—	·01
	Total - -	50	3	—	3	1	—	4·74
	Constitutional Group.							
	Rheumatism - -	45	—	—	—	3	1	3·34
	Primary Syphilis - -	116	—	—	—	—	—	9·18
	Secondary „ - -	35	—	—	—	3	--	2·78
	Tubercular diseases -	11	2	—	2	7	3	2·03
	Scurvy and Purpura -	—	—	—	—	—	—	—
	Other diseases - -	1	—	—	—	—	—	·01
	Total - -	208	2	—	2	13	4	17·34
	II. *Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	15	—	—	—	1	—	·88
2	Eye - - -	11	—	—	—	—	—	·48
3	Ear - - -	7	—	—	—	1	1	·21
4	Nose - - -	—	—	—	—	—	—	—
5	Circulatory System -	14	—	—	—	4	1	1·43
6	Absorbent „ -	40	—	—	—	—	—	5·41
7	Ductless Glands - -	—	—	—	—	—	—	—
8	Respiratory System -	42	—	—	—	—	—	3·13
9	Digestive „ -	148	—	—	—	1	1	3·81
10	Urinary System { Gonorrhœa -	34	—	—	—	—	—	1·56
	Urinary System { Sequelæ of Gonorr.	8	—	—	—	—	—	·61
	Urinary System { Other diseases -	16	—	—	—	1	—	·55
11	Generative System - -	10	—	—	—	—	—	·36
12	Organs of Locomotion -	8	—	—	—	—	—	·25
13	Cellular Tissue - -	19	—	—	—	—	—	·97
14	Cutaneous System - -	60	—	—	—	—	—	2·96
	III.— *Debility* -	25	—	—	—	6	—	2·68
	IV.—*Poisons* -	10	—	—	—	—	—	·24
	V.—*Injuries.*							
1	General - - -	—	—	—	—	—	—	—
2	Local - - -	143	2	—	2	1	1	5·06
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	5	—	—	—	—	—	·22
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total -	873	7	—	7	29	8	52·89
	Average of 10 years, 1873–82	—	—	—	—	—	—	—

* The average ratios for 10 years will be given in future years. The average ratios for the five years, 1879

Hospital, Deaths, Numbers Invalided and Constantly Sick among the
per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
1·4	—	—	—	·11	·3	—	—	—	·05
7·0	2·09	—	—	1·00	10·5	1·87	—	—	1·34
23·7	—	—	—	1·69	32·9	—	—	—	1·09
—	—	—	—	—	—	—	—	—	—
2·1	—	·70	—	·50	1·9	—	—	—	·10
—	—	—	—	—	·1	·14	—	—	—
·7	—	—	—	·01	2·0	—	—	—	·16
34·9	2·09	·70	—	3·31	47·7	2·01	—	—	2·74
31·4	—	2·09	·70	2·33	23·5	—	·86	·58	1·35
80·9	—	—	—	6·40	32·2	—	—	—	2·65
24·4	—	2·09	—	1·94	7·6	—	—	·29	·62
7·7	1·39	4·88	2·09	1·41	7·9	1·15	3·16	2·73	1·59
—	—	—	—	—	·1	—	—	—	·02
·7	—	—	—	·01	1·9	·14	·29	·14	·15
145·1	1·39	9·06	2·79	12·09	73·2	1·29	4·31	3·74	6·38
10·5	—	·70	—	·61	9·8	1·01	1·58	·43	·78
7·7	—	—	—	·33	11·5	—	·86	1·01	·77
4·9	—	·70	·70	·15	8·2	—	·43	·43	·52
—	—	—	—	—	·4	—	·14	—	·08
9·7	—	2·79	·70	1·00	13·6	·14	2·44	2·01	1·54
27·9	—	—	—	3·77	24·3	—	·14	—	2·92
—	—	—	—	—	·1	—	—	—	·02
29·3	—	—	—	2·18	36·3	·14	·86	·43	1·92
103·2	—	·70	·70	2·66	137·0	·72	1·01	·72	4·06
23·7	—	—	—	1·09	24·4	—	—	—	1·44
5·6	—	—	—	·43	3·2	—	·29	—	·40
11·1	—	·70	—	·38	7·6	—	·58	·43	·56
7·0	—	—	—	·25	8·9	—	·14	·14	·40
5·6	—	—	—	·17	3·9	·14	·58	·58	·30
13·2	—	—	—	·68	26·4	—	·14	—	·97
41·8	—	—	—	2·06	63·8	—	·58	·58	2·52
17·4	—	4·18	—	1·87	17·4	—	1·29	2·15	1·30
7·0	—	—	—	·17	9·8	·58	—	—	·41
—	—	—	—	—	—	·86	—	—	—
99·7	1·39	·70	·70	3·53	130·6	·29	·72	·72	5·15
—	—	—	—	—	—	—	—	—	—
3·5	—	—	—	·15	·7	·29	—	—	·02
—	—	—	—	—	—	—	—	—	—
608·8	4·87	20·22	5·58	36·88	658·8	7·47	16·09	13·37	35·15
636·4	7·81	19·29	13·15	33·30	—	—	—	—	—

to 1883 will be given in the Report for 1884; those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. VII.—Table showing the Average Strength, the Admissions into Troops stationed at West Indies, during the year 1883, with the

Orders.	Average Strength, 831.		Deaths.			Invalids.		
	Diseases.	Admissions into Hospital.	In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	Average Number Constantly Sick.
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other -	1	—	—	—	—	—	·07
	Continued „ { Enteric -	4	2	—	2	—	—	·60
	Continued „ { Other -	250	—	—	—	16	—	13·67
	Yellow Fever - -	2	2	—	2	—	—	·02
	Paroxysmal Fevers -	18	3	—	3	2	—	·96
	Cholera - - -	1	—	—	—	—	—	·03
	Other Diseases - -	3	—	—	—	—	—	·21
	Total - -	279	7	—	7	18	—	15·56
	Constitutional Group.							
	Rheumatism - -	50	—	—	—	—	2	2·47
	Primary Syphilis - -	86	—	—	—	—	—	6·41
	Secondary „ - -	28	—	—	—	—	—	3·11
	Tubercular Diseases -	5	—	1	1	7	4	2·04
	Scurvy and Purpura -	—	—	—	—	—	—	—
	Other Diseases - -	—	—	—	—	—	—	—
	Total - -	169	—	1	1	7	6	14·03
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	22	1	—	1	5	—	1·57
2	Eye - - - - -	11	—	—	—	2	3	·79
3	Ear - - - - -	10	—	—	—	—	1	·58
4	Nose - - - -	1	—	—	—	—	—	·05
5	Circulatory System -	12	1	—	1	3	1	1·70
6	Absorbent „ -	30	—	—	—	—	—	2·39
7	Ductless Glands - -	—	—	—	—	—	—	—
8	Respiratory System -	20	—	—	—	1	—	·95
9	Digestive „ -	106	2	—	2	—	1	3·94
10	Urinary System { Gonorrhœa -	57	—	—	—	—	—	3·30
	Urinary System { Sequelæ of Gonorr.	18	—	—	—	—	—	1·69
	Urinary System { Other Diseases -	11	—	—	—	—	—	·48
11	Generative System - -	20	—	—	—	—	—	·75
12	Organs of Locomotion -	3	—	—	—	2	—	·67
13	Cellular Tissue - -	11	—	—	—	—	—	·23
14	Cutaneous System - -	66	—	—	—	—		2·62
	III.—*Debility* -	27	—	—	—	7	1	1·46
	IV.—*Poisons.*	10	—	—	—	—	—	·17
	V.—*Injuries.*							
1	General - - -	—	—	—	—	—	—	—
2	Local - - - -	104	—	—	—	2	—	2·88
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	1	—	—	—	—	—	·01
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total -	988	11	1	12	47	13	55·82
	Average for 10 years, 1873–82	—	—	—	—	—	—	—

* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

HOSPITAL, DEATHS, NUMBERS INVALIDED, and CONSTANTLY SICK among the WHITE Ratios per 1,000 of the Strength, and the Average Ratios for 10 years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
1·2	—	—	—	.08	·3	—	—	—	·01
4·8	2·41	—	—	·73	3·4	1·43	—	—	·18
300·8	—	19·25	—	16·45	123·0	—	—	—	2·64
2·4	2·41	—	—	·02	18·9	11·73	—	—	·49
21·7	3·61	2·41	—	1·15	55·2	3·72	1·14	—	2·49
1·2	—	—	—	·04	—	—	—	—	—
3·6	—	—	—	·25	·9	—	—	—	·02
335·7	8·42	21·66	—	18·72	201·7	16·88	1·14	—	5·83
60·2	—	—	2·41	2·97	34·0	—	1·14	·86	1·76
103·5	—	—	—	7·71	32·3	—	—	—	1·80
33·7	—	—	—	3·74	9·4	—	·57	—	·56
6·0	1·20	8·42	4·81	2·46	8·0	·57	4·01	2·29	1·86
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·9	—	—	—	·08
203·4	1·20	8·42	7·22	16·88	84·6	·57	5·72	3·15	6·01
26·5	1·20	6·02	—	1·89	15·4	·57	5·15	2·86	1·72
13·2	—	2·41	3·61	·95	9·4	—	1·43	·86	·64
12·0	—	—	1·20	·70	11·4	—	·86	1·43	·47
1·2	—	—	—	·06	—	—	—	—	—
14·4	1·20	3·61	1·20	2·05	14·3	·29	3·15	2·86	1·44
36·1	—	—	—	2·88	17·2	—	—	—	1·36
—	—	—	—	—	—	—	—	—	—
24·1	—	1·20	—	1·14	25·5	·86	·29	·86	1·98
127·6	2·41	—	1·20	4·74	123·3	1·43	2·00	1·14	4·01
68·6	—	—	—	3·97	53·8	—	—	—	2·48
21·7	—	—	—	2·03	13·2	—	—	—	·83
13·2	—	—	—	·58	11·7	—	—	—	·25
24·1	—	—	—	·90	16·6	—	—	·57	·70
3·6	—	2·41	—	·81	10·8	—	1·14	·57	·99
13·2	—	—	—	·28	18·3	—	—	—	·74
79·4	—	—	—	3·15	56·6	—	·57	·57	2·01
32·5	—	8·42	1·20	1·76	26·3	—	8·86	2·29	2·09
12·0	—	—	—	·20	7·1	·57	—	—	·20
—	—	—	—	—	·3	·57	·29	—	·11
125·2	—	2·41	—	3·47	117·9	1·14	·29	·86	4·46
—	—	—	—	—	—	—	—	—	—
1·2	—	—	—	·01	·3	—	—	—	·00
—	—	—	—	—	—	—	—	—	—
1188·9	14·44	56·56	15·64	67·17	835·2	22·88	30·89	18·02	38·32
933·9	15·76	23·60	13·92	43·60	—	—	—	—	—

to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. VIII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into
TROOPS stationed in the WEST INDIES, during the year 1883, with the

Orders.	Average Strength, 1,087.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—General Diseases.							
	Febrile Group.							
	Eruptive Fevers Small-pox	—	—	—	—	—	—	—
	Other	51	—	—	—	—	—	1·84
	Continued ,, Enteric	—	—	—	—	—	—	—
	Other	50	—	—	—	—	—	1·34
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	70	1	—	1	—	—	1·97
	Cholera	—	—	—	—	—	—	—
	Other diseases	—	—	—	—	—	—	—
	Total	171	1	—	1	—	—	5·15
	Constitutional Group.							
	Rheumatism	70	—	—	—	—	9	6·10
	Primary Syphilis	136	—	—	—	—	—	12·79
	Secondary ,,	30	1	—	1	—	10	3·96
	Tubercular Diseases	10	2	—	2	—	7	1·35
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other diseases	3	1	—	1	—	—	·08
	Total	249	4	—	4	—	26	24·28
	II. *Local Diseases.*							
	Diseases of the—							
1	Nervous System	22	—	—	—	—	7	1·44
2	Eye	17	—	—	—	—	1	·80
3	Ear	3	—	—	—	—	—	·04
4	Nose	—	—	—	—	—	—	—
5	Circulatory System	22	—	—	—	—	4	1·49
6	Absorbent ,,	22	—	—	—	—	—	2·80
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	68	3	—	3	—	—	4·70
9	Digestive ,,	88	1	—	1	—	1	3·20
10	Urinary System Gonorrhœa	146	—	—	—	—	—	8·52
	Sequelæ of Gonorr.	21	—	—	—	—	1	1·30
	Other diseases	11	1	—	1	—	1	·45
11	Generative System	30	—	—	—	—	4	1·90
12	Organs of Locomotion	7	—	—	—	—	2	·39
13	Cellular Tissue	31	—	—	—	—	—	·79
14	Cutaneous System	86	—	—	—	—	—	3·97
	III.—*Debility*	12	—	—	—	—	4	1·17
	IV.—*Poisons*	—	—	—	—	—	—	—
	V.—*Injuries.*							
1	General	—	—	—	—	—	—	—
2	Local	112	—	—	—	—	3	3·89
3	In action	—	—	—	—	—	—	—
	No appreciable disease	—	—	—	—	—	—	—
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total	1,118	10	—	10	—	54	66·28
	Average of 10 years, 1873–82*	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the BLACK
Ratios per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000, from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
46·9	—	—	—	1·69	·9	—	—	—	·07
—	—	—	—	—	·2	—	—	—	·00
46·0	—	—	—	1·23	66·3	—	—	—	2·37
—	—	—	—	—	·2	·23	—	—	·00
64·4	·92	—	—	1·81	170·6	1·62	—	·23	4·52
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	1·2	—	—	—	·02
157·3	·92	—	—	4·73	239·4	1·85	—	·23	6·98
64·4	—	—	8·28	5·61	73·4	—	—	3·69	3·40
125·1	—	—	—	11·77	123·8	—	—	—	8·26
27·6	·92	—	9·20	3·64	29·3	·23	—	4·62	3·40
9·2	1·84	—	6·44	1·24	14·3	6·00	—	7·39	2·21
—	—	—	—	—	—	—	—	—	—
2·8	·92	—	—	·07	2·6	—	—	·46	·24
229·1	3·68	—	23·92	22·33	243·4	6·23	—	16·16	17·51
20·2	—	—	6·44	1·32	16·6	·69	—	4·16	1·40
15·6	—	—	·92	·74	18·5	—	—	·23	·95
2·8	—	—	—	·04	2·1	—	—	—	·18
—	—	—	—	—	·2	—	—	—	·01
20·2	—	—	3·68	1·37	16·6	2·54	—	5·31	1·39
20·2	—	—	—	2·58	25·2	—	—	—	1·81
—	—	—	—	—	—	—	—	—	—
62·6	2·76	—	—	4·32	57·7	1·16	—	2·08	3·64
81·0	·92	—	·92	2·94	101·4	3·00	—	·92	5·43
134·3	—	—	—	7·84	117·5	—	—	—	6·54
19·3	—	—	·92	1·20	23·3	—	—	—	1·87
10·1	·92	—	·92	·41	6·5	·69	—	·46	·29
27·6	—	—	3·68	1·75	24·7	—	—	·69	1·59
6·4	—	—	1·84	·36	11·1	—	—	1·85	·88
28·5	—	—	—	·73	22·2	—	—	·23	1·21
79·1	—	—	—	3·65	81·0	—	—	·46	3·18
11·1	—	—	3·68	1·08	15·2	·46	—	7·16	1·31
—	—	—	—	—	·2	—	—	—	·01
—	—	—	—	—	—	·46	—	—	—
103·1	—	—	2·76	3·58	84·0	·46	—	1·39	3·50
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	2·1	—	—	—	·10
—	—	—	—	—	—	—	—	—	—
1028·5	9·20	—	49·68	60·97	1108·9	17·54	—	41·33	59·88
1118·4	17·23	—	41·33	57·56	—	—	—	—	—

to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. IX.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into
stationed at WEST AFRICA during the year 1883, with the

Orders.	Average Strength, 492.		Deaths.			Invalids.		
	Diseases.	Admissions into Hospital.	In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other	37	—	—	—	—	—	1·47
	Continued „ { Enteric	—	—	—	—	—	—	—
	Continued „ { Other	—	—	—	—	—	—	—
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	362	1	—	1	—	—	6·58
	Cholera	—	—	—	—	—	—	—
	Other Diseases	1	—	—	—	—	—	·02
	Total	400	1	—	1	—	—	8·07
	Constitutional Group.							
	Rheumatism	49	—	—	—	—	—	3·46
	Primary Syphilis	57	—	—	—	—	—	2·81
	Secondary „	5	—	—	—	—	—	·55
	Tubercular diseases	8	5	—	5	—	—	1·55
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other Diseases	—	—	—	—	—	—	—
	Total	119	5	—	5	—	—	8·37
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System	3	1	—	1	—	—	·28
2	Eye	10	—	—	—	—	—	·66
3	Ear	—	—	—	—	—	—	—
4	Nose	—	—	—	—	—	—	—
5	Circulatory System	10	1	—	1	—	—	·66
6	Absorbent „	6	—	—	—	—	—	·14
7	Ductless glands	—	—	—	—	—	—	—
8	Respiratory System	26	2	—	2	—	—	1·15
9	Digestive „	65	1	—	1	—	—	2·30
10	Urinary System { Gonorrhœa	76	—	—	—	—	—	3·46
	Urinary System { Sequelæ of Gonorr.	9	—	—	—	—	—	·40
	Urinary System { Other diseases	4	1	—	1	—	—	·09
11	Generative System	7	—	—	—	—	—	·49
12	Organs of Locomotion	9	—	—	—	—	—	·32
13	Cellular Tissue	9	—	—	—	—	—	·28
14	Cutaneous System	61	—	—	—	—	—	2·20
	III.—*Debility*	3	—	—	—	—	—	·16
	IV.—*Poisons*	3	1	—	1	—	—	·04
	V.—*Injuries.*							
1	General	—	—	—	—	—	—	—
2	Local	45	—	—	—	—	—	1·62
3	In action	—	—	—	—	—	—	—
	No appreciable disease	1	—	—	—	—	—	·02
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total	866	13	—	13	—	—	30·81
	Average of 10 years, 1873–82	—	—	—	—	—	—	—

* The average ratios for 10 years will be given in future years. The average ratios for the five years, 1879

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS
Ratios per 1,000 of the Strength, and the Average Ratios for 10 years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	-	—	·4	—	—	—	·03
75·2	-	—	-	2·99	2·9	—	—	—	·13
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	1·7	—	—	—	·08
—	—	—	—	—	·4	·42	—	—	—
785·8	2·03	—	—	13·37	463·2	3·83	—	—	14·98
—	—	—	—	—	—	—	—	—	—
2·0	—	—	—	·04	10·8	—	—	—	·51
813·0	2·03	—	—	16·40	479·4	3·75	—	—	15·73
99·7	—	—	—	7·03	69·1	—	—	1·25	3·61
115·8	—	—	—	5·71	112·3	—	—	—	6·74
10·1	—	—	—	1·12	43·7	—	—	4·58	2·66
16·3	10·16	—	—	3·15	26·2	8·74	—	2·91	2·55
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	2·1	·42	—	—	·11
241·9	10·16	—	—	17·01	253·4	9·16	—	8·74	15·67
6·1	2·03	—	—	·57	25·4	·83	—	·83	1·30
20·3	—	—	—	1·34	24·6	—	—	2·08	1·51
—	—	—	—	—	6·6	—	—	—	·24
—	—	—	—	—	·4	—	—	—	—
20·3	2·03	—	—	1·34	26·2	1·25	—	4·16	2·18
12·2	—	—	—	·29	17·1	—	—	—	·78
—	—	—	—	—	—	—	—	—	—
52·8	4·07	—	—	2·34	74·9	1·66	—	2·08	3·13
132·1	2·03	—	—	4·68	136·9	3·74	—	1·25	4·85
154·5	—	—	—	7·03	135·7	—	—	—	5·57
18·3	—	—	—	·81	17·9	—	—	—	·92
8·1	2·03	—		·18	6·2	·42	—	—	·30
14·2	—	—	—	1·00	18·7	—	—	—	·76
18·3	—	—	—	·65	18·7	—	—	—	1·39
18·3	—	—	—	·77	35·8	—	—	—	1·15
124·0	—	—	—	4·47	112·8	—	—	—	4·71
6·1	—	—	—	·33	9·6	—	—	—	·27
6·1	2·03	—	—	·08	·8	—	—	—	·02
—	—	—	—	—	·4	·42	—	—	·02
91·5	—	—	—	3·29	109·9	—	—	·83	3·12
—	—	—	—	—	—	—	—	—	—
2·0	—	—	—	·04	2·1	—	—	—	·04
—	—	—	—	—	—	—	—	—	—
1760·1	26·42	—	—	62·62	1513·5	21·22	—	19·97	63·66
1619·2	24·84	—	19·97	62·50	—	—	—	—	—

to 1883, will be given in the Report for 1884, those for the six years, 1879 to 1884, in that for 1885, &c., &c.

ABSTRACT No. X.—Table showing the Average Strength, Admissions into
stationed at the Cape of Good Hope and St. Helena during the year 1883

Orders.	Average Strength, 2,850.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I. *General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other -	4	—	—	—	—	—	1·20
	Continued „ { Enteric -	31	3	—	3	—	—	6·40
	Continued „ { Other -	99	—	—	—	—	—	5·06
	Yellow Fever - -	—	—	—	—	—	—	—
	Paroxysmal Fevers -	14	—	—	—	—	—	·59
	Cholera - - -	—	—	—	—	—	—	—
	Other Diseases - -	7	—	—	—	—	—	·54
	Total - -	155	3	—	3	—	—	13·79
	Constitutional Group.							
	Rheumatism - - -	102	—	—	—	14	7	7·96
	Primary Syphilis - -	241	—	—	—	—	—	18·66
	Secondary „ - -	45	—	—	—	8	2	5·68
	Tubercular Diseases - -	10	—	2	2	9	5	1·56
	Scurvy and Purpura - -	—	—	—	—	—	—	—
	Other Diseases - -	6	—	—	—	3	1	·84
	Total - -	404	—	2	2	34	15	34·70
	II. *Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	35	—	—	—	15	3	4·39
2	Eye - - - - -	34	—	—	—	8	7	3·42
3	Ear - - - - -	18	—	—	—	6	4	1·76
4	Nose - - -	—	—	—	—	—	—	—
5	Circulatory System - -	52	—	—	—	27	8	7·10
6	Absorbent „ - -	42	—	—	—	—	—	4·01
7	Ductless Glands - -	—	—	—	—	—	—	—
8	Respiratory System - -	84	1	—	1	4	3	6·39
9	Digestive „ - -	244	4	—	4	10	3	14·06
10	Urinary System { Gonorrhœa -	204	—	—	—	—	—	13·15
	Urinary System { Sequelæ of Gonorr.	18	—	—	—	—	—	·84
	Urinary System { Other diseases -	23	2	—	2	3	1	2·09
11	Generative System - -	21	—	—	—	1	1	1·22
12	Organs of Locomotion -	16	—	—	—	4	5	1·54
13	Cellular Tissue - -	45	—	—	—	—	—	2·64
14	Cutaneous System - -	132	—	—	—	1	2	6·07
	III. *Debility* -	78	—	—	—	38	4	7·04
	IV. *Poisons* -	13	—	—	—	—	—	·32
	V. *Injuries.*							
1	General - - -	6	—	—	—	—	—	·07
2	Local - - -	232	1	—	1	6	3	13·05
3	In action - - -	—	—	—	—	—	1	—
	No appreciable disease -	—	—	—	—	—	—	—
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total -	1,856	11	2	13	157	60	137·65
	Average of 10 years, 1873-82	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879 to

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS with the Ratios per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	·1	—	—	—	·12
1·4	—	—	—	·42	·6	—	—	—	
10·9	1·05	—	—	2·25	46·8	10·84	—	—	9·77
34·7	—	—	—	1·77	102·5	·70	—	—	
—	—	—	—	—	—	—	—	—	—
4·9	—	—	—	·21	51·9	·86	4·65	·09	2·39
—	—	—	—	—	—	—	—	—	—
2·5	—	—	—	·19	2·7	·12	·09	—	·17
54·4	1·05	—	—	4·84	204·6	12·02	13·76	·09	12·45
35·8	—	4·91	2·46	2·79	45·9	—	6·55	1·41	2·87
84·5	—	—	—	6·55	36·9	—	—	—	3·30
15·8	—	2·81	·70	1·99	19·2	·03	1·47	·40	1·54
8·5	·70	8·16	1·75	·55	8·5	·73	1·59	1·88	·30
—	—	—	—	—	1·1	—	·09	—	·05
2·1	—	1·05	·85	·29	2·2	·21	·49	·15	·19
141·7	·70	11·98	5·26	12·17	108·8	·98	10·19	3·33	8·25
12·3	—	5·26	1·05	1·54	11·6	·70	3·09	·95	·90
11·9	—	2·81	2·46	1·20	11·2	—	1·10	·92	·72
6·3	—	2·11	1·40	·62	4·4	—	·61	·49	·30
—	—	—	—	—	·2	·03	—	—	·01
18·2	—	9·47	2·81	2·49	18·7	·70	8·26	4·71	1·62
14·7	—	—	—	1·41	10·7	—	·24	·12	·85
—	—	—	—	—	—	—	—	·03	—
29·5	·35	1·40	1·05	2·24	34·1	1·19	2·20	1·01	2·32
85·6	1·40	3·51	1·05	4·93	178·1	4·31	11·74	2·66	10·24
71·6	—	—	—	4·62	23·6	—	—	—	1·85
6·3	—	—	—	·29	6·2	—	·28	·09	·43
8·1	·70	1·05	·35	·73	4·4	·12	·67	·31	·24
7·4	—	·35	·35	·43	7·6	—	·46	·28	·51
5·6	—	1·40	1·75	·54	5·7	·12	1·25	·83	·44
15·8	—	—	—	·93	17·6	—	·34	·18	·95
46·3	—	·35	·70	2·13	52·8	—	·58	·18	2·96
27·4	—	18·33	1·40	2·47	37·3	·15	12·82	2·63	2·53
4·6	—	—	—	·11	3·0	·58	—	—	·16
2·1	—	—	—	·03	·5	1·62	—	—	·02
81·4	·35	2·11	1·05	4·58	76·9	·52	2·20	1·65	3·85
—	—	—	·35	—	21·8	34·93	9·27	6·67	1·95
—	—	—	—	—	·8	—	—	—	·04
—	—	—	—	—	—	—	—	—	—
651·2	4·56	55·09	21·05	48·30	840·6	57·99	79·06	27·13	53·59
846·1	40·63	56·47	20·89	50·15	—	—	—	—	—

1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for the year 1885, &c., &c.

ABSTRACT No. XI.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into stationed at MAURITIUS during the Year 1883, with the Ratios per

Orders.	Average Strength, 388.		Deaths.			Invalids.		
	Diseases.	Admissions into Hospital.	In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	Average Number constantly Sick.
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers: Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers: Other	—	—	—	—	—	—	—
	Continued „ : Enteric	6	3	—	3	1	—	·47
	Continued „ : Other	13	—	—	—	—	—	·32
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	347	2	—	2	5	—	11·81
	Cholera	—	—	—	—	—	—	—
	Other Diseases	1	—	—	—	—	—	·02
	Total	367	5	—	5	6	—	12·62
	Constitutional Group.							
	Rheumatism	6	—	—	—	1	—	·53
	Primary Syphilis	64	—	—	—	—	—	5·85
	Secondary „	44	—	—	—	—	—	4·71
	Tubercular diseases	3	—	—	—	1	—	·08
	Scurvy and Purpura	—	—	—	—	—	—	—
	Other Diseases	—	—	—	—	—	—	·05
	Total	117	—	—	—	2	—	11·22
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System	8	—	—	—	—	—	·19
2	Eye	2	—	—	—	—	—	·27
3	Ear	8	—	—	—	—	—	·19
4	Nose	—	—	—	—	—	—	—
5	Circulatory System	—	—	—	—	—	—	—
6	Absorbent „	11	—	—	—	—	—	1·18
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	11	—	—	—	—	—	·35
9	Digestive „	113	1	—	1	1	—	4·11
10	Urinary System: Gonorrhœa	33	—	—	—	—	—	2·76
	Urinary System: Sequelæ of Gonorr.	10	—	—	—	—	—	·81
	Urinary System: Other diseases	—	—	—	—	—	—	—
11	Generative System	3	—	—	—	—	—	·12
12	Organs of Locomotion	2	—	—	—	—	—	·08
13	Cellular Tissue	13	—	—	—	—	—	·63
14	Cutaneous System	23	—	—	—	—	—	·86
	III.—*Debility*	5	—	—	—	1	—	·17
	IV.—*Poisons*	3	—	—	—	—	—	·10
	V.—*Injuries.*							
1	General	2	—	—	—	2		·23
2	Local	56	—	—	—	—		1·95
3	In action	—	—	—	—	—		—
	No appreciable disease	—	—	—	—	—	—	—
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total	787	6	—	6	12	—	37·79
	Average of 10 years, 1873–82	—	—	—	—	—		—

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* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879 to

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS
1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 for 1879–82.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	·7	—	—	—	·06
15·5	7·73	2·58	—	1·21	1·4	·69	—	—	·11
33·5	—	—	—	·82	76·9	—	—	—	2·24
—	—	—	—	—	—	—	—	—	—
894·3	5·15	12·89	—	30·44	1240·5	4·16	26·33	—	34·77
—	—	—	—	—	—	—	—	—	—
2·6	—	—	—	·05	—	—	—	—	—
945·9	12·89	15·46	—	32·52	1319·5	4·85	26·33	—	37·18
15·5	—	2·58	—	1·37	30·5	—	·69	2·08	2·04
165·0	—	—	—	15·08	140·7	—	—	—	9·46
113·4	—	—	—	12·14	74·2	—	2·08	—	4·81
7·7	—	2·58	—	·20	6·2	·69	2·77	2·08	1·07
—	—	—	—	—	2·1	—	—	—	·14
—	—	—	—	·18	4·8	—	1·39	·69	·34
301·6	—	5·15	—	28·92	258·5	·69	6·93	4·85	17·86
20·6	—	—	—	·49	8·3	—	3·47	·69	·96
5·1	—	—	—	·69	10·4	—	—	·69	·64
20·6	—	—	—	·49	18·0	—	—	·69	1·00
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	37·4	1·39	6·93	6·93	2·93
28·4	—	—	—	3·04	52·7	—	—	—	4·82
—	—	—	—	—	—	—	—	—	—
28·4	—	—	—	·90	51·3	—	·69	1·39	2·40
291·3	2·58	2·58	—	10·59	225·2	5·55	2·08	2·08	6·86
85·1	—	—	—	7·11	100·5	—	—	—	5·31
25·8	—	—	—	2·09	20·0	—	·69	·69	1·83
—	—	—	—	—	20·0	·69	·69	—	1·57
7·7	—	—	—	·31	7·6	—	—	—	·71
5·1	—	—	—	·08	4·2	—	·69	·69	·32
33·5	—	—	—	1·62	31·2	—	—	—	·91
59·8	—	—	—	2·22	94·3	—	—	—	3·01
12·9	—	2·58	—	·44	54·1	—	11·09	4·85	2·64
7·7	—	—	—	·26	6·9	·69	—	—	·16
5·1	—	5·15	—	·59	—	—	—	—	—
144·3	—	—	—	5·03	151·8	·69	1·39	—	4·51
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	0·7	—	—	—	·01
—	—	—	—	—	—	—	—	—	—
2028·4	15·46	30·92	—	97·39	2472·6	14·55	60·98	23·56	95·63
2067·5	17·99	41·23	15·49	66·22	—	—	—	—	—

1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. XII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS
TROOPS stationed at CEYLON during the Year 1883, with the Ratios

Orders.	Average Strength, 969.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	—	—	—	—	—	—	—
	Eruptive Fevers { Other -	—	—	—	—	—	—	—
	Continued „ { Enteric -	4	1	—	1	—	—	·10
	Continued „ { Other -	90	—	—	—	—	—	3·97
	Yellow Fever - -	—	—	—	—	—	—	—
	Paroxysmal Fevers - -	67	—	—	—	1	—	2·09
	Cholera - - -	—	—	—	—	—	—	—
	Other Diseases - -	—	—	—	—	—	—	*—
	Total - -	161	1	—	1	1	—	6·16
	Constitutional Group.							
	Rheumatism - -	32	—	—	—	—	1	.87
	Primary Syphilis - -	70	—	—	—	—	—	4·24
	Secondary „ - -	15	—	—	—	2	1	1·35
	Tubercular diseases -	7	—	3	3	6	1	·45
	Scurvy and Purpura -	—	—	—	—	—	—	—
	Other Diseases - -	2	—	—	—	—	—	·08
	Total - -	126	—	3	3	8	3	6·99
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	21	1	—	1	5	—	1·51
2	Eye - - -	19	—	—	—	—	—	1·16
3	Ear - - -	25	—	—	—	2	2	1·07
4	Nose - - -	—	—	—	—	—	—	—
5	Circulatory System -	33	—	—	—	7	1	2·36
6	Absorbent „ - -	30	—	—	—	3	1	2·57
7	Ductless Glands - -	—	—	—	—	—	1	—
8	Respiratory System -	45	1	—	1	5	1	2·85
9	Digestive „ - -	252	2	—	2	14	1	10·36
10	Urinary System { Gonorrhœa -	101	—	—	—	—	—	5·40
	Urinary System { Sequelæ of Gonorr.	13	—	—	—	—	—	·88
	Urinary System { Other diseases -	14	—	—	—	—	—	·48
11	Generative System - -	20	—	—	—	—	—	·90
12	Organs of Locomotion -	5	—	—	—	—	—	·19
13	Cellular Tissue - -	24	1	—	1	—	—	·89
14	Cutaneous System - -	95	—	—	—	1	1	3·19
	III.—*Debility* -	30	—	—	—	9	1	1·71
	IV.—*Poisons* -	14	—	—	—	—	—	·33
	V.—*Injuries.*							
1	General - - -	—	2	—	2	—	—	—
2	Local - - -	169	1	—	1	—	—	4·71
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	4	—	—	—	—	—	·29
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total -	1,201	9	3	12	55	12	54·00
	Average of 10 years, 1873–82	—	—	—	—	—	—	—

* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879

into Hospital, Deaths, Numbers Invalided and Constantly Sick among the per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	1·0	—	—	—	·02
4·1	1·03	—	—	·10	2·6	1·82	—	—	·21
92·9	—	—	—	4·10	89·7	—	—	—	2·76
—	—	—	—	—	—	—	—	—	—
69·2	—	1·03	—	2·16	11·5	·26	—	—	·49
—	—	—	—	—	·3	—	—	—	—
—	—	—	—	—	4·9	—	—	—	·16
166·2	1·03	1·03	—	6·36	110·0	2·09	—	—	3·64
33·0	—	—	1·03	·90	26·1	—	1·30	·78	1·25
72·2	—	—	—	4·38	150·2	—	·26	—	9·22
15·5	—	2·06	1·03	1·39	32·3	—	2·09	·52	2·57
7·2	3·10	6·19	1·03	·46	14·1	2·87	5·74	3·91	1·57
—	—	—	—	—	—	—	—	—	—
2·1	—	—	—	·08	1·0	—	—	—	·06
130·0	3·10	8·26	3·10	7·21	223·7	2·87	9·39	5·21	14·67
21·7	1·03	5·16	—	1·56	18·0	·26	5·74	·52	3·40
19·6	—	—	—	1·20	18·5	—	·78	·52	1·07
25·8	—	2·06	2·06	1·10	12·0	—	·26	—	·31
—	—	—	—	—	1·0	—	—	—	·08
34·1	—	7·22	1·03	2·44	14·1	·78	3·39	1·83	1·02
81·0	—	3·10	1·03	2·65	62·0	—	·52	—	5·96
—	—	—	1·03	—	—	—	—	—	—
46·4	1·03	5·16	1·03	2·94	25·3	·78	1·56	1·30	1·54
260·1	2·06	14·45	1·03	10·69	284·4	7·82	19·29	2·87	13·49
104·2	—	—	—	5·57	94·4	—	—	—	5·19
13·4	—	—	—	·91	15·6	—	—	—	·95
14·4	—	—	—	·50	14·9	—	—	—	·53
20·6	—	—	—	·93	19·8	—	·26	·26	·88
5·2	—	—	—	·20	4·4	—	1·04	·78	·47
24·8	1·03	—	—	·92	33·1	—	·26	·26	1·02
98·0	—	1·03	1·03	3·29	108·7	—	·26	·78	3·66
31·0	—	9·29	1·03	1·76	22·2	—	2·87	2·61	1·34
14·4	—	—	—	·34	14·1	·52	—	—	·26
—	2·06	—	—	—	·3	1·82	·26	·26	·04
174·4	1·03	—	—	4·86	153·5	·26	·52	1·04	4·89
—	—	—	—	—	—	—	—	—	—
4·1	—	—	—	·30	1·8	—	—	—	·04
—	—	—	—	—	—	—	—	—	—
1239·4	12·38	56·76	12·38	55·73	1251·8	17·20	46·40	18·25	64·45
1009·6	13·99	38·58	14·69	53·07	—	—	—	—	—

to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. XIII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into TROOPS stationed in CHINA and the STRAITS SETTLEMENTS, during the Year 1883,

Orders.	Average Strength, 1,713. Diseases.	Admissions into Hospital.	Deaths. In the Command.	 Of Invalids.	 Total.	Invalids. Number sent Home.	 Number finally Discharged the Service.	Average Number constantly Sick.
	I. *General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	2	—	—	—	—	—	·13
	Eruptive Fevers { Other	2	—	—	—	—	—	·07
	Continued { Enteric	—	—	—	—	—	—	—
	Continued { Other	514	—	—	—	3	—	15·91
	Yellow Fever	—	—	—	—	—	—	—
	Paroxysmal Fevers	559	5	—	5	1	—	13·32
	Cholera	—	—	—	—	—	—	—
	Other Diseases	1	—	—	—	—	—	·01
	Total	1,078	5	—	5	4	—	29·44
	Constitutional Group.							
	Rheumatism	33	—	—	—	—	—	1·51
	Primary Syphilis	71	—	—	—	—	—	6·84
	Secondary „	17	—	—	—	1	1	2·31
	Tubercular diseases	16	1	1	2	3	5	·60
	Scurvy and Purpura	1	—	—	—	—	—	·03
	Other Diseases	4	—	—	—	2	—	·37
	Total	142	1	1	2	6	6	11·66
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System	29	—	—	—	5	1	2·97
2	Eye	16	—	—	—	1	2	1·57
3	Ear	24	—	—	—	—	—	1·42
4	Nose	1	—	—	—	—	—	·07
5	Circulatory System	43	1	—	1	12	10	4·18
6	Absorbent „	26	—	—	—	—	—	3·12
7	Ductless Glands	—	—	—	—	—	—	—
8	Respiratory System	59	—	—	—	1	1	3·12
9	Digestive „	225	2	—	2	3	4	11·63
10	Urinary System { Gonorrhœa	146	—	—	—	—	—	9·08
	Urinary System { Sequelæ of Gonorr.	35	—	—	—	—	—	1·83
	Urinary System { Other diseases	28	—	—	—	2	—	3·34
11	Generative system	24	—	—	—	1	1	1·74
12	Organs of Locomotion	8	—	—	—	2	2	·94
13	Cellular Tissue	40	—	—	—	—	—	1·30
14	Cutaneous System	105	—	—	—	—	—	4·85
	III.—*Debility*	126	—	—	—	18	7	8·74
	IV.—*Poisons*	18	—	—	—	—	—	·58
	V.—*Injuries.*							
1	General	—	2	—	2	—	—	—
2	Local	162	—	—	—	—	1	5·35
3	In action	—	—	—	—	—	—	—
	No appreciable disease	4	—	—	—	—	—	·08
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General total	2,339	11	1	12	55	35	107·01
	Average of 10 years, 1873–82	—	—	—	—	—	—	—

* The average ratios for 10 years will be given in future years. The average ratios for the five years 1879 to 1883

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the with the Ratios per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
1·2	—	—	—	·08	·3	—	—	—	·06
1·2	—	—	—	·04	2·3	—	—	—	·07
—	—	—	—	—	1·4	·70	·14	—	·10
300·0	—	1·75	—	9·29	134·7	·14	·42	—	3·34
—	—	—	—	—	—	—	—	—	—
326·3	2·92	·58	—	7·77	64·5	·14	·70	—	2·11
—	—	—	—	—	—	—	—	—	—
·6	—	—	—	·01	2·3	·28	—	—	·08
629·3	2·92	2·33	—	17·19	205·5	1·27	1·27	—	5·76
19·3	—	—	—	·88	17·3	—	—	·14	·95
41·5	—	—	—	3·99	61·1	—	—	—	5·30
9·9	—	·58	·58	1·35	11·8	·14	·28	·70	1·29
9·3	1·17	1·75	2·92	·35	15·9	1·27	9·56	4·50	2·40
·6	—	—	—	·02	·1	—	—	—	—
2·3	—	1·17	—	·22	2·4	·28	·56	—	·15
82·9	1·17	3·50	3·50	6·81	108·6	1·69	10·40	5·34	10·09
16·9	—	2·92	·58	1·73	16·7	1·69	3·37	·42	1·58
9·3	—	·58	1·17	·92	15·0	—	1·27	·84	·97
14·0	—	—	—	·83	11·4	—	·84	·28	·64
·6	—	—	—	·04	·4	—	·14	—	·01
25·1	·58	7·01	5·84	2·44	22·8	·84	5·06	3·23	1·88
15·2	—	—	—	1·82	29·5	—	—	—	3·22
—	—	—	—	—	—	—	—	—	—
34·5	—	·58	·58	1·82	42·6	·14	1·83	·42	2·40
131·4	1·17	1·75	2·33	6·79	158·7	1·27	5·76	·99	7·03
85·2	—	—	—	5·30	90·4	—	—	—	5·46
20·4	—	—	—	1·07	16·2	—	—	—	1·02
16·3	—	1·17	—	1·95	8·1	·14	1·13	·28	·76
14·0	—	·58	·58	1·01	17·6	—	·14	·14	·81
4·6	—	1·17	1·17	·55	4·2	·14	·84	·56	·47
23·4	—	—	—	·76	17·9	—	—	—	·83
61·3	—	—	—	2·83	64·4	—	·56	·14	2·47
73·6	—	10·51	4·09	5·10	29·9	—	8·01	1·55	1·99
10·5	—	—	—	·34	7·3	·28	—	—	·27
—	1·17	—	—	—	·3	·14	—	—	·01
94·6	—	—	·58	3·12	114·4	·14	·70	·56	3·89
—	—	—	—	—	—	—	—	—	—
2·3	—	—	—	·05	2·9	—	—	—	·05
—	—	—	—	—	—	—	—	—	—
1365·4	7·01	32·11	20·43	62·47	984·8	7·73	41·32	14·75	51·61
1069·5	11·61	42·76	16·67	48·59	—	—	—	—	—

will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. XIV.—Table showing the Average Strength, Admissions into
stationed in Bengal during the Year 1883, with the Ratios per

Orders.	Average Strength, 34,395.	Admissions into Hospital.	Deaths.			Invalids.		Average Number Constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small Pox	86	7	—	7	—	—	7·34
	Eruptive Fevers { Other -	41	1	—	1	—	—	1·37
	Continued „ { Enteric -	274	84	—	84	1	—	31·65
	Continued „ { Other -	3,727	4	—	4	2	—	135·00
	Yellow Fever - -	—	—	—	—	—	—	—
	Paroxysmal Fevers - -	12,756	14	—	14	43	1	367·23
	Cholera - - -	48	32	—	32	—	—	1·25
	Other diseases - -	137	2	1	3	1	1	6·02
	Total of Febrile group	17,069	144	1	145	47	2	549·86
	Constitutional Group.							
	Rheumatism - -	1,399	1	—	1	46	24	90·92
	Primary Syphilis - -	2,976	—	—	—	1	—	235·31
	Secondary „ - -	806	—	—	—	36	17	73·54
	Tubercular Diseases -	233	27	16	43	113	56	34·19
	Scurvy and Purpura -	95	6	—	6	—	—	5·27
	Other diseases - -	184	4	—	4	19	4	11·83
	Total of Constitutional group	5,693	38	16	54	215	101	451·06
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	760	55	1	56	103	20	64·37
2	Eye - - -	551	—	—	—	26	21	30·41
3	Ear - - - -	541	—	—	—	30	19	25·08
4	Nose - - -	38	—	—	—	—	—	1·89
5	Circulatory System - -	538	14	2	16	140	97	45·07
6	Absorbent „ - -	561	—	—	—	2	—	52·19
7	Ductless Glands - -	4	—	—	—	2	—	·25
8	Respiratory System -	1,857	20	9	29	33	19	86·45
9	Digestive „ -	7,698	60	8	68	205	39	297·17
10	Urinary System { Gonorrhœa -	4,048	—	—	—	—	—	268·30
	Urinary System { Sequelæ of Gonorr.	663	—	—	—	6	—	44·38
	Urinary System { Other diseases -	383	6	2	8	13	13	20·11
11	Generative System - -	391	—	—	—	4	3	20·99
12	Organs of Locomotion -	181	—	2	2	25	18	16·52
13	Cellular Tissue - -	690	1	—	1	3	—	29·79
14	Cutaneous System - -	2,982	—	—	—	6	4	119·55
	III.—*Debility* -	746	—	1	1	142	48	48·54
	IV.—*Poisons* -	219	8	—	8	—	—	7·96
	V.—*Injuries.*							
1	General - - -	12	11	—	11	—	—	·92
2	Local - - -	3,944	25	—	25	47	42	148·80
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	82	—	—	—	—	—	8·10
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total -	49,651	382	42	424	1,049	446	2,832·26
	Average of 10 years, 1873–82	—	—	—	—	—	—	—

* The average ratios for 10 years will be given in future years. The average ratios
years 1879 to 1884 in that for

Hospital, Deaths, Numbers Invalided and Constantly Sick among the Troops
1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.†
2·5	·20	—	—	·21	·6	·05	—	—	·03
1·2	·03	—	—	·04	2·3	·01	—	—	·13
8·0	2·44	·03	—	·92	7·7	3·14	·10	—	·85
108·3	·12	·06	—	3·92	147·3	·16	·07	—	4·27
—	—	—	—	—	—	—	—	—	—
370·9	·41	1·25	·03	10·68	636·1	1·58	2·45	·08	14·79
1·4	·93	—	—	·04	5·4	4·10	—	—	·07
4·0	·09	·03	·03	·18	4·2	·12	—	·01	·25
496·3	4·22	1·37	·06	15·99	803·6	9·16	2·62	·10	20·39
40·7	·03	1·34	·70	2·64	37·4	·02	1·53	·84	1·94
86·5	—	·03	—	6·84	88·5	—	·05	—	6·35
23·4	—	1·05	·49	2·14	24·0	·04	1·02	·58	1·82
6·8	1·25	3·28	1·63	1·00	7·1	1·50	2·11	1·70	·99
2·8	·17	—	—	·15	·6	·01	·01	—	·04
5·3	·12	·55	·12	·34	3·2	·13	·56	·18	·28
165·5	1·57	6·25	2·94	13·11	160·8	1·70	5·28	3·30	11·42
22·1	1·63	2·99	·58	1·87	19·8	2·63	2·91	·84	1·34
16·0	—	·75	·61	·88	15·5	—	·57	·63	·90
15·7	—	·87	·55	·73	11·2	—	·49	·51	·57
1·1	—	—	—	·04	·6	·01	·02	·01	·02
15·6	·46	4·07	2·82	1·31	16·4	·67	4·02	3·07	1·30
16·3	—	·06	—	1·52	19·3	—	·07	·06	1·67
·1	—	·06	—	·01	·4	·01	·01	·01	·04
54·0	·84	·96	·55	2·51	55·8	1·67	1·15	·95	2·77
223·8	1·98	5·96	1·13	8·64	240·3	4·62	6·63	2·51	9·18
117·7	—	—	—	7·80	111·7	—	—	—	6·52
19·3	—	·17	—	1·29	15·4	·01	·18	·08	1·04
11·1	·23	·38	·38	·58	10·4	·24	·39	·18	·52
11·4	—	·12	·09	·61	12·7	·01	·09	·10	·64
5·3	·06	·73	·52	·48	5·1	·07	·62	·48	·47
20·1	·03	·09	—	·87	17·2	·01	·07	·04	·85
86·7	—	·17	·12	3·48	75·4	—	·33	·26	3·20
21·7	·03	4·13	1·39	1·41	36·4	·12	8·99	4·55	·92
6·4	·23	—	—	·23	4·1	·35	—	—	·18
·3	·32	—	—	·03	·4	·56	·01	·01	·01
114·7	·73	1·37	1·22	4·33	96·2	1·01	·81	·58	3·91
	—	—	—	—	—	·01	·13	·01	—
2·4	—	—	—	·09	1·4	—	·01	—	·05
—	—	—	—	—	—	—	—	—	—
1443·6	12·33	30·50	12·96	67·81	1730·1	22·86	35·40	18·28	66·91
1517·9	19·08	37·59	15·76	62·21	—	—	—	—	—

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*or the five years 1879 to 1883 will be given in the Report for 1884, those for the six
885, &c., &c. † For two years only.

ABSTRACT No. XV.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the ADMISSIONS and DEATHS which took place at the CHIEF STATIONS in the BENGAL COMMAND during the year 1883.

Divisions.	Stations.	Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.		Ratio per 1,000 of Strength, 1873 to 1882.	
					Admissions.	Deaths.	Admissions.	Deaths.
PRESIDENCY -	Fort William -	854	828	8	969·6	9·37	1026·7	8·72
	Dum-Dum - -	762	738	8	968·5	10·50	1247·4	14·34
	Barrackpore - -	249	306	1	1228·9	4·02	2002·6	16·73
	Darjeeling - -	222	143	1	614·1	4·50	1125·0	18·46
ALLAHABAD -	Allahabad - -	672	833	15	1239·6	22·32	1601·7	20·10
	Fort Allahabad -	199	277	—	1392·0	—	*1694·9	26·19
	Cawnpore - -	745	876	10	1175·8	13·42	1479·1	18·43
	Dinapore - -	1.042	1,442	25	1383·9	23·99	1525·8	15·02
	Benares - - -	384	493	15	1283·9	39·06	1664·0	23·68
	Chunar - - -	72	118	7	1638·9	97·22	2540·8	38·73
OUDH - -	Lucknow - -	2,105	3,179	29	1510·2	13·78	1386·6	18·11
	Military Prison -	44	73	—	1659·1	—	†1428·6	102·04
	Sitapur - - -	462	569	4	1231·6	8·66	1360·0	20·21
	Fyzabad - -	856	1,585	7	1851·6	8·18	1547·7	23·54
ROHILCUND -	Bareilly - - -	799	997	3	1247·8	3·75	1203·6	10·79
	Moradabad - -	186	211	5	1134·4	26·88	1366·5	16·59
	Shahjehanpur -	210	629	5	2995·2	23·81	1057·7	14·71
	Ranikhet - -	528	902	2	1708·3	3·79	895·0	10·08
	Choubuttia - -	199	344	2	1728·6	10·05	‡1137·8	5·77
	Naini Tal - -	264	345	7	1306·8	26·52	1407·3	16·34
SAUGOR - -	Jubbulpore - -	575	811	8	1410·4	13·91	1246·3	9·44
	Saugor - - -	370	553	4	1494·6	10·81	1530·7	15·50
	Nowgong - -	276	362	4	1311·6	14·49	1575·0	19·27
	Pachmachi - -	73	63	—	863·0	—	1550·0	8·27
GWALIOR - -	Morar - - -	950	1,747	15	1838·9	15·79	1531·2	21·95
	Fortress Gwalior -	423	494	15	1167·8	35·46	1284·5	21·67
	Jhansi - - -	307	440	5	1433·2	16·29	1991·3	8·70
MEERUT - -	Meerut - - -	1,534	2,218	13	1455·4	8·53	1653·8	16·49
	Fatehgarh - -	165	290	2	1757·6	12·12	1552·5	14·64
	Agra - - -	1,202	1,516	7	1261·2	5·82	1447·5	13·18
	Muttra - - -	341	312	1	915·0	2·93	1346·2	19·95
	Delhi - - -	412	1,029	10	2497·6	24·27	2602·0	20·17
	Roorkee - - -	391	360	4	1087·6	12·08	1153·0	15·90
	Chakrata - -	455	577	—	1268·1	—	774·6	7·11
	Landour - -	155	218	—	1406·5	—	1585·3	16·67
SIRHIND - -	Umballa - -	1,745	1,568	14	898·6	8·02	1500·9	12·63
	Jullundur - -	759	734	7	967·1	9·22	1544·4	18·08
	Subathu - -	345	580	3	1681·2	8·70	1054·6	16·38
	Dagshai - -	722	827	4	1145·4	5·54	1057·4	10·89
	Jutogh - - -	236	297	2	1258·5	8·47	949·0	12·76
	Solon - - -	206	167	1	810·7	4·85	§1159·6	14·76
	Kasanli - - -	393	458	6	1165·4	15·27	1820·8	23·58
LAHORE - -	Meean Meer - -	983	2,604	13	2657·1	13·27	2878·7	31·06
	Fort Lahore - -	114	293	4	2570·2	35·09	2361·8	41·10
	Ferozepore - -	1,030	1,467	14	1424·3	13·59	1571·4	15·23
	Mooltan - - -	985	1,449	11	1471·1	11·17	1694·6	12·08
	Amritsar - -	272	836	3	3073·5	11·03	2522·2	15·88
	Bhagsu - - -	57	36	1	631·6	17·54	‖1212·8	12·41
	Dalhousie - -	268	341	1	1272·4	3·73	1608·8	7·26

* 5 years (1878-82). † 1 year (1882). ‡ 4 years (1879-82).

§ 9 years (1874-82). ‖ 8 years (1873-78, and 1881-82).

Divisions.	Stations.	Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.		Ratio per 1,000 of Strength, 1878 to 1882.	
					Admissions.	Deaths.	Admissions.	Deaths.
RAWAL PINDI	Rawal Pindi	1,531	2,158	10	1409·5	6·53	1576·7	13·76
	Fort Attock	113	400	2	3539·8	17·70	2286·5	24·71
	Sialkot	830	1,272	6	1532·5	7·23	1576·1	20·55
	Campbellpore	100	177	3	1770·0	30·00	1354·0	15·73
	Khyra Gully	53	65	1	1226·4	18·87	1359·0	26·51
	Barra Gully	36	48	—	1333·3	—	*1294·0	8·87
	Chungla Gully	62	84	—	1354·8	—	†1288·4	9·26
	Kalabagh	59	82	1	1389·8	16·95	*1749·4	9·11
	Kooldunnah	219	304	1	1388·1	4·57	*1164·1	17·58
	Camp Gharial	183	186	—	1016·4	—	‡ 817·0	17·19
	Murree	239	348	2	1456·1	8·37	2269·8	26·53
PESHAWAR	Peshawar	1,368	3,548	12	2593·6	8·77	2534·5	21·95
	Nowshera	857	1,174	4	1369·9	4·67	1892·3	21·43
	Cherat	589	1,247	7	2117·6	11·88	§1323·4	15·06
MARCHING	Troops marching	1,631	1,023	7	627·2	4·29	976·7	16·21

* 9 years (1873-79, and 1881-82).

† 8 years (1873-78 and 1881-82).

‡ 7 years (1874-78 and 1881-82).

§ 9 years (1873-78 and 1880-82).

ABSTRACT No. XVI.—Table, taken from the Report of the Principal ferent Classes of Diseases in each of the Military Divisions in the

Order.	Military Divisions.	Presidency.		Allahabad.		Oudh.		Rohilcund.	
	Average Strength.	2,087		3,114		3,467		2,186	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
	Febrile Group.								
	Eruptive Fevers	18	1	12	—	38	4	4	1
	Continued „	143	4	674	9	568	11	186	4
	Yellow Fever	—	—	—	—	—	—	—	—
	Paroxysmal Fevers	272	—	585	3	611	—	1,134	4
	Cholera	1	1	37	24	2	2	—	—
	Other Diseases	1	—	13	—	6	—	22	—
	Total	435	6	1,321	36	1,225	17	1,346	9
	Constitutional Group.								
	Rheumatism	105	—	101	—	183	—	88	—
	Primary Syphilis	282	—	142	—	297	—	158	—
	Secondary „	39	—	59	—	95	—	69	—
	Tubercular Diseases	6	1	20	8	29	2	23	1
	Scurvy and Purpura	2	2	5	1	2	—	32	1
	Other diseases	1	—	26	1	14	—	15	—
	Total	435	3	353	10	620	2	385	2
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System	59	3	81	10	77	4	39	2
2	Eye	18	—	37	—	92	—	33	—
3	Ear	41	—	34	—	120	—	45	—
4	Nose	1	—	4	—	3	—	5	—
5	Circulatory System	14	—	30	2	60	2	30	—
6	Absorbent „	18	—	76	—	65	—	48	—
7	Ductless Glands	—	—	—	—	—	—	1	—
8	Respiratory System	61	1	138	—	280	2	100	1
9	Digestive „	242	4	784	6	1,119	4	533	8
10	Urinary System. Gonorrhœa	246	—	303	—	448	—	267	—
	Urinary System. Sequelæ of Gonorrhœa	34	—	68	—	98	—	34	—
	Urinary System. Other Diseases	21	—	25	1	56	—	26	—
11	Generative System	24	—	45	—	43	—	31	—
12	Organs of Locomotion	16	—	21	—	23	—	7	—
13	Cellular Tissue	31	—	56	—	77	1	37	—
14	Cutaneous System	124	—	253	—	433	—	162	—
	III. *Debility*	27	—	85	—	50	—	79	—
	IV. *Poisons*	20	1	15	—	23	2	18	—
	V. *Injuries.*								
1	General	—	—	—	2	1	—	2	1
2	Local	148	—	297	5	473	6	191	1
3	In action	—	—	—	—	—	—	—	—
	No appreciable Disease	—	—	13	—	20	—	4	—
	Cause unknown (refers to deaths only)	—	—	—	—	—	—	—	—
	General total	2,015	18	4,039	72	5,406	40	3,428	24

Medical Officer, showing the Prevalence and Mortality of the dif-
Bengal Command with the ratios per 1,000 of Strength during the year 1883.

Saugor.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Marching.		Total.	
1,294		1,680		4,585		4,406		3,706		3,425		2,814		1,631		34,395	
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
2	1	8	—	28	1	4	—	6	—	—	—	6	—	1	—	127	8
111	3	305	15	422	8	302	9	678	13	291	7	304	4	17	1	4,001	88
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
537	—	802	1	1,891	1	670	3	2,400	—	1,337	2	2,252	—	265	—	12,756	14
—	—	6	5	—	—	—	—	—	—	—	—	—	—	2	—	48	32
6	—	3	—	4	1	37	—	19	—	8	—	15	1	3	—	137	2
656	4	1,124	21	2,345	11	1,013	12	3,103	13	1,636	9	2,577	5	288	1	17,069	144
31	—	64	—	121	1	158	—	197	—	155	—	157	—	39	—	1,399	1
131	—	76	—	469	—	340	—	311	—	266	—	379	—	125	—	2,976	—
20	—	47	—	108	—	98	—	90	—	85	—	82	—	14	—	806	—
13	1	16	3	29	3	28	5	22	1	12	1	32	1	3	—	233	27
—	—	32	1	6	1	4	—	4	—	2	—	6	—	—	—	95	6
6	—	—	—	29	1	12	2	36	—	30	—	10	—	5	—	184	4
201	1	235	4	762	6	640	7	660	1	550	1	606	1	186	—	5,693	38
27	4	56	3	58	3	70	4	98	13	70	4	114	5	11	—	760	55
12	—	11	—	70	—	77	—	50	—	80	—	64	—	7	—	551	—
12	—	29	—	58	—	49	—	53	—	41	—	56	—	3	—	541	—
2	—	7	—	4	—	3	—	1	—	2	—	6	—	—	—	38	—
18	—	35	—	64	2	48	1	66	3	55	3	108	1	10	—	538	14
20	—	26	—	62	—	57	—	36	—	100	—	28	—	25	—	561	—
—	—	—	—	—	—	—	—	2	—	—	—	1	—	—	—	4	—
27	1	71	1	181	2	162	2	330	3	165	1	291	4	51	2	1,857	20
279	5	411	5	900	5	894	7	831	9	803	6	792	1	105	—	7,698	60
168	—	168	—	690	—	426	—	401	—	487	—	288	—	156	—	4,048	—
12	—	44	—	81	—	62	—	106	—	61	—	54	—	9	—	663	—
18	—	21	—	47	2	35	1	57	1	39	1	31	—	7	—	383	6
15	—	12	—	48	—	52	—	42	—	37	—	34	—	8	—	391	—
2	—	6	—	20	—	29	—	24	—	21	—	5	—	7	—	181	—
20	—	33	—	102	—	90	—	106	—	67	—	55	—	16	—	690	1
105	—	165	—	381	—	305	—	444	—	291	—	283	—	36	—	2,982	—
43	—	45	—	28	—	34	—	142	—	45	—	146	—	22	—	746	—
13	—	9	—	14	—	20	2	44	1	19	—	23	1	1	1	219	8
—	—	—	1	2	3	4	—	—	—	1	—	2	3	—	1	12	11
137	1	171	—	593	3	553	1	421	3	545	1	340	2	75	2	3,944	25
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	—	2	—	10	—	8	—	9	—	9	—	5	—	—	—	82	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,789	16	2,681	35	6,520	37	4,631	37	7,026	47	5,124	26	5,969	23	1,023	7	49,651	382

Ratio per 1,000

Order.	Military Divisions.	Presidency.		Allahabad.		Oudh.		Rohilcund.	
	Average Strength.	2,087		3,114		3,467		2,186	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
	Febrile Group.								
	Eruptive Fevers	8·6	·48	3·9	—	11·0	1·15	1·8	·46
	Continued „	68·5	1·91	216·4	2·89	163·8	3·17	85·1	1·83
	Yellow Fever	—	—	—	—	—	—	—	—
	Paroxysmal Fevers	130·4	—	187·8	·97	176·2	—	518·7	1·83
	Cholera	·5	·48	11·9	7·71	·6	·58	—	—
	Other diseases	·5	—	4·2	—	1·7	—	10·1	—
	Total	208·5	2·87	424·2	11·57	353·3	4·90	615·7	4·12
	Constitutional Group.								
	Rheumatism	50·3	—	32·5	—	52·8	—	40·3	—
	Primary Syphilis	135·1	—	45·6	—	85·7	—	72·3	—
	Secondary „	18·7	—	19·0	—	27·4	—	31·6	—
	Tubercular Diseases	2·9	·48	6·4	2·57	8·4	·58	10·5	·46
	Scurvy and Purpura	1·0	·96	1·6	·32	·6	—	14·6	·46
	Other diseases	·5	—	8·3	·32	4·0	—	6·8	—
	Total	208·5	1·44	113·4	3·21	178·9	·58	176·1	·92
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System	28·3	1·44	26·0	3·21	22·2	1·15	17·8	·92
2	Eye	8·6	—	11·9	—	26·5	—	15·1	—
3	Ear	19·6	—	10·9	—	34·6	—	20·6	—
4	Nose	·5	—	1·3	—	·9	—	2·3	—
5	Circulatory System	6·7	—	9·6	·64	17·3	·58	13·7	—
6	Absorbent „	8·7	—	24·4	—	18·7	—	22·0	—
7	Ductless Glands	—	—	—	—	—	—	·5	—
8	Respiratory System	29·3	·48	44·3	—	80·8	·58	45·8	·46
9	Digestive „	116·0	1·91	251·8	1·93	322·8	1·15	246·1	3·66
10	Urinary System — Gonorrhœa	117·9	—	97·3	—	129·2	—	122·2	—
	Urinary System — Sequelæ of Gonorrhœa	16·3	—	21·8	—	28·3	—	15·6	—
	Urinary System — Other diseases	10·1	—	8·0	·32	16·2	—	11·9	—
11	Generative System	11·5	—	14·5	—	12·4	—	14·2	—
12	Organs of Locomotion	7·7	—	6·7	—	6·6	—	3·2	—
13	Cellular Tissue	14·9	—	18·0	—	22·2	·29	16·9	—
14	Cutaneous System	59·4	—	81·2	—	124·9	—	74·1	—
	III. *Debility*	12·5	—	27·3	—	14·4	—	36·1	—
	IV. *Poisons*	9·6	·48	4·8	—	6·6	·58	8·2	—
	V. *Injuries.*								
1	General	—	—	—	·64	·3	—	·9	·46
2	Local	70·9	—	95·4	1·60	136·4	1·73	87·4	·46
3	In action	—	—	—	—	—	—	—	—
	No appreciable disease	—	—	4·2	—	5·8	—	1·8	—
	Cause unknown (refers to deaths only)	—	—	—	—	—	—	—	—
	General Total	965·5	8·62	1297·0	23·12	1559·3	11·54	1568·2	10·98

of Mean Strength.

Saugor.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Marching.		Total.	
1,294		1,680		4,585		4,406		3,706		3,425		2,814		1,631		34,395	
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
1·5	·77	4·8	—	6·1	·22	·9	—	1·6	—	—	—	2·1	—	·6	—	3·7	·23
85·8	2·32	181·5	8·93	92·0	1·74	68·5	2·04	183·0	3·51	85·0	2·04	108·0	1·42	10·4	·61	116·3	2·56
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
415·0	—	477·4	·59	412·4	·22	152·1	·68	647·6	—	390·4	·59	800·3	—	162·5	—	370·9	·41
—	—	3·6	2·98	—	—	—	—	—	—	—	—	—	—	1·2	—	1·4	·93
4·6	—	1·8	—	·9	·22	8·4	—	5·1	—	2·3	—	5·3	·36	1·8	—	4·0	·06
506·9	3·09	669·1	12·50	511·4	2·40	229·9	2·72	837·3	3·51	477·7	2·63	915·7	1·78	176·5	·61	496·3	4·19
24·0	—	38·1	—	26·4	·22	35·9	—	33·2	—	45·2	—	55·8	—	23·9	—	40·7	·03
101·2	—	45·2	—	102·3	—	77·2	—	83·9	—	77·7	—	134·7	—	76·6	—	86·5	—
15·5	—	28·0	—	23·6	—	22·2	—	24·3	—	24·8	—	29·1	—	8·6	—	23·4	—
10·0	·77	9·5	1·79	6·3	·65	6·4	1·14	5·9	·27	3·5	·29	11·4	·36	1·8	—	6·8	·78
—	—	19·1	·59	1·3	·22	·9	—	1·1	—	·6	—	2·1	—	—	—	2·8	·17
4·6	—	—	—	6·3	·22	2·7	·45	9·7	—	8·8	—	3·6	—	3·1	—	5·3	·12
155·3	·77	139·9	2·38	166·2	1·31	145·3	1·59	178·1	·27	160·6	·29	236·7	·36	114·0	—	165·5	1·10
20·9	3·09	33·3	1·79	12·6	·65	15·9	·91	26·5	3·51	20·4	1·17	40·5	1·78	6·8	—	22·1	1·60
9·3	—	6·5	—	15·3	—	17·5	—	13·5	—	23·4	—	22·7	—	4·3	—	16·0	—
9·3	—	17·3	—	12·6	—	11·1	—	14·3	—	12·0	—	19·9	—	1·8	—	15·7	—
1·5	—	4·2	—	·9	—	·7	—	·3	—	·6	—	2·1	—	—	—	1·1	—
13·9	—	20·8	—	14·0	·44	10·9	·23	17·8	·81	16·1	·88	38·4	·36	6·1	—	15·6	·41
15·5	—	15·5	—	13·5	—	12·9	—	9·7	—	29·2	—	10·0	—	15·3	—	16·3	—
—	—	—	—	—	—	—	—	·5	—	—	—	·4	—	—	—	·1	—
20·9	·77	42·3	·59	39·5	·44	36·8	·45	89·0	·81	48·2	·29	103·4	1·40	31·3	1·23	54·0	·58
215·6	3·87	244·6	2·98	196·3	1·09	202·9	1·59	224·2	2·42	234·4	1·75	281·5	·36	64·4	—	223·8	1·75
129·8	—	100·0	—	150·5	—	96·7	—	108·2	—	142·2	—	102·3	—	95·7	—	117·7	—
9·3	—	26·2	—	17·7	—	14·1	—	28·6	—	17·8	—	19·2	—	5·5	—	19·3	—
13·9	—	12·5	—	10·2	·44	7·9	·23	15·4	·27	11·4	·29	11·0	—	4·3	—	11·1	·17
11·6	—	7·1	—	10·5	—	11·8	—	11·3	—	10·8	—	12·1	—	4·9	—	11·4	—
1·5	—	3·6	—	4·4	—	6·6	—	6·5	—	6·1	—	1·8	—	4·3	—	5·3	—
15·5	—	19·6	—	22·2	—	20·4	—	28·6	—	19·6	—	19·5	—	9·8	—	20·1	·03
81·2	—	98·2	—	83·1	—	69·2	—	119·8	—	85·0	—	100·6	—	22·1	—	86·7	—
33·2	—	26·8	—	6·1	—	7·7	—	38·3	—	13·1	—	51·9	—	13·5	—	21·7	—
10·0	—	5·3	—	3·1	—	4·5	·45	11·9	·27	5·5	—	8·2	·36	·6	·61	6·4	·23
—	—	—	·59	·4	·65	·9	—	—	—	·3	—	·7	1·07	—	·61	·3	·32
105·9	·77	101·8	—	129·3	·65	125·5	·23	113·6	·81	159·1	·29	120·8	·71	46·0	1·23	114·7	·73
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1·5	—	1·2	—	2·2	—	1·8	—	2·4	—	2·6	—	1·8	—	—	—	2·4	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1382·5	12·36	1595·8	20·83	1422·0	8·07	1051·0	8·40	1895·8	12·68	1496·1	7·59	2121·2	8·17	627·2	4·29	1443·6	11·11

ABSTRACT No. XVII.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the STATIONS in the BENGAL COMMAND at which the ADMISSIONS and DEATHS from ENTERIC FEVER took place in each of the four quarters of the year 1883.

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Presidency -	Fort William -	—	—	1	1	1	—	—	—	2	1
	Dum-Dum -	1	1	—	—	—	—	—	—	1	1
Allahabad -	Cawnpore -	—	—	—	—	1	1	—	—	1	[illegible]
	Dinapore -	—	—	1	—	9	6	3	1	13	7
	Chunar -	—	—	—	—	3	1	2	—	5	1
Oudh - -	Lucknow -	15	1	13	4	12	2	4	1	44	8
	Sitapur -	2	—	3	1	3	1	2	—	10	2
	Fyzabad -	2	—	3	—	1	1	4	—	10	1
Rohilcund -	Bareilly -	—	—	4	—	1	1	1	—	6	1
	Moradabad -	—	—	—	—	2	2	—	—	2	2
	Shahjehanpur	1	—	—	1	—	—	—	—	1	1
	Ranikhet -	1	—	2	—	1	—	—	—	4	—
Saugor - -	Jubbulpore -	2	2	—	—	1	1	—	—	3	3
Gwalior - -	Morar - -	1	—	1	1	10	5	2	1	14	7
	Fortress Gwalior.	—	—	2	2	10	6	—	—	12	8
	Jhansi - -	—	—	—	—	1	—	—	—	1	—
Meerut - -	Meerut - -	1	1	1	1	6	2	2	1	10	5
	Muttra -	1	—	1	—	—	—	—	—	2	—
	Delhi -	—	—	2	2	—	—	1	—	3	2
	Roorkee -	—	—	2	—	—	—	—	—	2	—
	Chakrata -	—	—	—	—	1	—	—	—	1	—

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Sirhind - -	Umballa -	1	—	2	—	1	1	5	2	9	3
	Jullundur -	—	—	2	2	—	—	1	—	3	2
	Subathu -	1	—	8	2	11	—	2	—	22	2
	Dagshai -	—	—	—	—	—	—	1	—	1	—
	Jutogh -	—	—	2	1	1	1	2	—	5	2
	Solon - -	—	—	3	—	2	—	—	—	5	—
Lahore - -	Meean Meer -	2	—	12	1	3	1	1	—	18	2
	Fort Lahore -	1	—	3	1	—	—	1	—	5	1
	Ferozepore -	3	1	2	1	6	3	2	—	13	5
	Mooltan -	4	1	3	2	1	1	1	—	9	4
	Dalhousie -	—	—	3	1	2	—	—	—	5	1
Rawal Pindi -	Rawal Pindi -	1	—	5	2	1	—	—	1	7	3
	Sialkot - -	—	—	—	—	2	1	1	1	3	2
	Campbellpore	—	—	3	2	1	—	—	—	4	2
	Camp Gharial	—	—	2	—	—	—	—	—	2	—
Peshawar -	Peshawar -	2	—	4	1	—	—	—	—	6	1
	Nowshera -	—	—	2	—	—	—	1	—	3	—
	Cherat - -	—	—	5	3	2	—	—	—	7	3
	Total -	42	7	97	32	96	37	39	8	274	84

ABSTRACT No. XVIII.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the STATIONS in the BENGAL COMMAND at which the ADMISSIONS and DEATHS from CHOLERA took place in each of the four quarters of the year 1883.

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Presidency -	Fort William	1	—	—	1	—	—	—	—	1	1
Allahabad -	Allahabad -	—	—	—	—	18	11	—	—	18	11
	Cawnpore -	—	—	—	—	1	1	—	—	1	1
	Dinapore -	—	—	11	6	1	1	—	—	12	7
	Benares -	—	—	1	1	—	—	—	—	1	1
	Chunar -	—	—	5	4	—	—	—	—	5	4
Oudh - -	Lucknow -	—	—	1	1	1	1	—	—	2	2
Gwalior - -	Fortress Gwalior.	—	—	—	—	6	5	—	—	6	5
	Marching -	1	—	—	—	—	—	1	—	2	—
	Total -	2	—	18	13	27	19	1	—	48	32

ABSTRACT No. XIX.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the PREVALENCE of DYSENTERY, DIARRHŒA, and HEPATITIS in each of the DIVISIONS in the BENGAL COMMAND during the Year 1883.

Divisions.	Presidency.		Allahabad.		Oudh.		Rohilcund.		Saugor.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Marching.		Total.	
Strength.	2,087		3,114		3,467		2,186		1,294		1,680		4,585		4,406		3,706		3,425		2,814		1,631		34,395	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Dysentery - - - - -	53	2	89	2	133	—	54	1	41	3	24	—	61	1	63	1	53	1	87	—	107	1	23	—	788	12
Diarrhœa - - - - -	32	—	164	1	247	—	199	—	65	—	107	—	143	—	214	—	177	—	128	1	161	—	32	—	1,669	2
Hepatitis and Abscess of Liver -	26	1	82	2	153	4	38	6	11	1	33	3	174	3	76	6	76	6	120	4	96	—	11	—	896	36
Total - - - - -	111	3	335	5	533	4	291	7	117	4	164	3	378	4	353	7	306	7	335	5	364	1	66	—	3,353	50

Ratio per 1,000 of Mean Strength.

Dysentery - - - - -	25·4	·96	28·6	·64	38·4	—	24·7	·46	31·7	2·32	14·3	—	13·3	·22	14·3	·23	14·3	·27	25·4	—	38·0	·36	14·1	—	22·9	·35
Diarrhœa - - - - -	15·3	—	52·7	·32	71·2	—	91·0	—	50·2	—	63·7	—	31·2	—	48·6	—	47·8	—	37·4	·29	57·2	—	19·6	—	48·5	·06
Hepatitis and Abscess of Liver -	12·5	·48	26·3	·64	44·1	1·15	17·4	2·74	8·5	·77	19·6	1·79	37·9	·65	17·2	1·36	20·5	1·62	35·0	1·17	34·1	—	6·7	—	26·1	1·04
Total - - - - -	53·2	1·44	107·6	1·60	153·7	1·15	133·1	3·20	90·4	3·09	97·6	1·79	82·4	·87	80·1	1·59	82·6	1·89	97·8	1·46	129·3	·36	40·4	—	97·5	1·45

ABSTRACT No. XX.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the PREVALENCE and MORTALITY in the Cantonments of the BENGAL COMMAND, due to DYSENTERY, DIARRHŒA, and HEPATITIS, in each Quarter of the Year 1883.

—	Strength.	Dysentery.				Diarrhœa.				Hepatitis (including Abscess of Liver).				Total.			
		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
1st Quarter -	33,277	146	4	4·4	·12	323	1	9·7	·03	212	8	6·4	·24	681	13	20·5	·39
2nd „ -	33,853	230	3	6·8	·09	432	1	12·7	·03	219	4	6·5	·12	881	8	26·0	·24
3rd „ -	33,513	207	2	6·2	·06	667	—	19·9	—	283	9	8·4	·27	1,157	11	34·5	·33
4th „ -	33,641	203	3	6·0	·09	264	—	7·9	—	193	15	5·7	·44	660	18	19·6	·53
Total -	33,571	786	12	23·4	·36	1,686	2	50·2	·06	907	36	27·0	1·07	3,379	50	100·6	1·49

ABSTRACT No. XXI.—TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the COMPARATIVE MORTALITY and INVALIDING in the THREE GRADES of COMMISSIONED OFFICERS, NON-COMMISSIONED OFFICERS, and PRIVATES during the Year 1883, and for the Ten previous Years in the BENGAL COMMAND:—

Years.	Average Strength.			Number of Deaths.			Invalided.			Ratio per 1,000.					
										Deaths.			Invalids.		
	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.
1873 - - -	1,371	2,777	34,397	20	82	482	97	174	1,255	14·59	29·53	14·01	70·75	62·66	36·49
1874 - - -	1,443	3,815	33,836	23	65	477	64	148	1,235	15·94	17·04	14·10	44·35	38·79	36·50
1875 - - -	1,485	3,842	34,053	10	96	544	75	142	1,189	6·73	24·99	15·98	50·51	36·96	34·92
1876 - - -	1,735	3,820	33,417	39	95	503	96	178	1,257	22·48	24·87	15·05	55·33	46·60	37·62
1877 - - -	2,066	3,787	32,761	29	57	357	83	136	1,162	14·04	15·05	10·90	40·17	35·91	35·47
1878 - - -	2,018	3,782	32,374	28	86	694	79	141	1,300	13·88	22·74	21·44	39·15	37·28	40·16
1879 - - -	2,010	4,266	34,615	74	183	1,444	124	204	1,437	36·82	42·90	41·72	61·69	47·82	41·51
1880 - - -	1,699	5,369	42,797	31	149	1,085	95	220	1,819	18·25	27·75	25·35	55·92	40·98	42·50
1881 - - -	1,116	4,524	33,373	17	95	561	76	204	1,571	15·23	21·00	16·81	68·10	45·09	47·07
1882 - - -	1,101	4,183	31,318	12	65	406	51	164	1,071	10·90	15·54	12·96	46·32	39·21	34·20
Average for 10 years -	1,604	4,017	34,294	28·30	97·30	655·30	84·00	171·10	1329·60	17·64	24·22	19·11	52·37	42·59	38·77
1883 - - -	1,106	4,242	30,001	26	51	333	46	109	941	23·51	12·02	11·10	41·59	25·70	31·37
1883 { Killed in action and died from wounds received in battle - - - }				—	—	—	—	—	—	—	—	—	—	—	—
1883 { Number of deaths, excluding those killed in action and died from wounds received in battle - - - }				26	51	333	—	—	—	23·51	12·02	11·10	—	—	—

ABSTRACT No. XXII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS into
stationed at MADRAS during the year 1883, with the Ratios per

Orders.	Average Strength, 10,612.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	9	1	—	1	—	—	·77
	Eruptive Fevers { Other -	5	—	—	—	—	—	·20
	Continued " { Enteric -	94	29	—	29	—	—	13·16
	Continued " { Other -	437	—	—	—	—	—	15·83
	Paroxysmal Fevers -	853	3	—	3	2	—	30·57
	Cholera - - -	19	10	—	10	—	—	·36
	Other diseases - -	9	1	—	1	—	—	·30
	Total - -	1,426	44	—	44	2	—	61·19
	Constitutional Group.							
	Rheumatism - -	259	—	—	—	15	8	14·15
	Primary Syphilis - -	1,168	—	—	—	1	—	94·77
	Secondary " - -	215	1	—	1	18	7	21·35
	Tubercular diseases -	57	6	5	11	24	15	9·67
	Scurvy and Purpura -	—	—	—	—	—	—	—
	Other diseases - -	33	2	1	3	2	1	2·53
	Total - -	1,732	9	6	15	60	31	142·47
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	123	9	—	9	37	12	9·88
2	Eye - - -	159	—	—	—	3	6	7·43
3	Ear - - -	130	—	—	—	13	8	6·65
4	Nose - - -	3	—	—	—	—	—	·09
5	Circulatory System -	199	1	1	2	52	23	18·44
6	Absorbent " -	380	—	—	—	1	—	46·07
7	Ductless Glands - -	1	—	—	—	—	—	·05
8	Respiratory System -	280	4	—	4	5	3	15·64
9	Digestive " - -	2,347	23	1	24	68	6	124·51
10	Urinary System { Gonorrhœa -	1,040	—	—	—	—	—	71·81
	Urinary System { Sequelæ of Gonorr.	158	—	—	—	2	—	11·79
	Urinary System { Other diseases -	64	3	3	6	2	1	2·56
11	Generative System - -	130	—	—	—	1	2	5·92
12	Organs of Locomotion -	43	—	1	1	10	4	3·12
13	Cellular Tissue - -	191	1	—	1	4	—	9·96
14	Cutaneous System - -	744	—	—	—	1	1	30·56
	III.—*Debility* -	259	—	—	—	63	13	19·32
	IV.—*Poisons* -	24	2	—	2	—	—	1·23
	V.—*Injuries.*							
1	General - - -	1	6	—	6	2	—	·37
2	Local - - -	1,067	6	—	6	21	12	44·10
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	16	—	—	—	—	—	·63
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total -	10,517	108	12	120	347	122	633·79
	Average of 10 years, 1873-82	—	—	—	—	—	—	—

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* The average ratios for 10 years will be given in future years. The average ratios or the five years 1879

HOSPITAL, DEATHS, NUMBERS INVALIDED and CONSTANTLY SICK among the TROOPS
1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000, from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
·8	·09	—	—	·07	·4	·02	—	—	·06
·5	—	—	—	·02	·5	—			
8·8	2·73	—	—	1·24	2·2	1·17	—	—	2·89
41·2	—	—	—	1·49	87·0	·26			
80·4	·28	·19	—	2·88	235·6	·36	·55	—	6·09
1·8	·94	—	—	·03	2·1	1·19	—	—	·04
·8	·09	—	—	·03	2·2	·12	—	—	·07
134·3	4·14	·19	—	5·76	330·0	3·12	·55	—	9·15
24·4	—	1·41	·75	1·33	30·8	·02	·88	·48	1·61
110·0	—	·09	—	8·93	104·9	—	·02	—	8·31
20·3	·09	1·70	·66	2·01	23·9	·05	1·12	·67	2·14
5·4	1·04	2·26	1·41	·91	6·8	·95	2·14	1·90	1·02
—	—	—	—	—	·1	—	—	—	·03
3·1	·28	·19	·09	·24	3·5	·05	·55	·09	·31
163·2	1·41	5·65	2·92	13·42	170·0	1·07	4·71	3·14	13·42
11·6	·84	3·49	1·13	·93	16·4	1·55	3·17	·62	1·10
15·0	—	·28	·57	·70	15·3	—	·50	·45	·77
12·2	—	1·22	·75	·62	10·5	—	·36	·41	·39
·3	—	—	—	·01	·6	—	·05	—	·02
18·8	·19	4·90	2·17	1·74	18·5	·93	4·41	2·31	1·49
35·8	—	·09	—	4·34	29·0	—	·07	·02	3·25
·1	—	—	—	—	·1	—	—	—	—
26·4	·38	·47	·28	1·47	33·5	·50	·90	·86	1·66
221·2	2·26	6·41	·57	11·74	244·7	3·59	7·86	2·38	11·66
98·0	—	—	—	6·77	101·4	—	—	—	6·38
14·9	—	·19	—	1·11	13·6	—	·31	·09	·97
6·0	·57	·19	·09	·24	8·5	·17	·29	·17	·34
12·2	—	·09	·19	·56	14·8	—	·07	·02	·62
4·0	·09	·94	·38	·29	5·9	·05	·52	·41	·45
18·0	·09	·38	—	·94	17·7	—	·14	·05	·71
70·1	—	·09	·09	2·88	77·8	—	·29	·19	3·17
24·4	—	5·94	1·22	1·82	31·4	·02	6·33	3·36	1·86
2·3	·19	—	—	·11	3·3	·19	—	—	·11
·1	·57	·19	—	·04	·2	·71	·02	·02	—
100·6	·57	1·98	1·13	4·16	102·2	·81	·69	·64	3·76
—	—	—	—	—	—	—	—	—	—
1·5	—	—	—	·06	1·8	—	—	—	·07
—	—	—	—	—	—	—	—	—	—
991·0	11·31	32·70	11·49	59·72	1247·2	12·71	31·24	15·14	61·35
1199·8	15·93	40·27	15·94	58·10	—	—	—	—	—

to 1883 will be given in the Report for 1884, those for the six years, 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. XXIII. — TABLE showing the AVERAGE STRENGTH, AVERAGE CONSTANTLY SICK, ADMISSIONS, DEATHS, and INVALIDS at the different STATIONS and CIRCLES in the MADRAS COMMAND, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER.

Divisions.	Stations.	Average Strength.	Average constantly Sick.	Admitted.	Died in and out of Hospital.	Invalided.	Ratio per 1,000 of Strength.					
							Average constantly Sick.	Admitted.	Died (in and out).	Invalided.	Average of previous Period of 10 Years.	
											Admitted.	Died.
Eastern District	Madras and Palaveram.	597	39	613	5	26	65·33	1026·80	8·38	43·65	1203·65	14·35
	St. Thomas' Mount	344	18	314	2	10	52·32	912·79	5·81	29·07	1264·06	15·14
	Total -	941	57	927	7	36	60·57	985·12	7·44	38·26	—	—
Western District	Cannanore -	689	45	590	5	26	65·31	856·31	7·26	37·73	1178·72	12·13
	Calicut - -	93	7	109	—	—	75·27	1172·04	—	—	1018·69	11·42
	Malliaporam -	92	6	104	—	—	65·22	1130·43	—	—	817·30	19·73
	Total -	874	58	803	5	26	66·36	918·76	5·72	29·75	—	—
Bangalore Division and Ceded Districts.	Bangalore -	1,844	148	2,452	21	62	80·26	1329·72	11·39	33·62	1120·98	10·30
	Bellary - -	986	67	1,043	7	28	67·95	1057·81	7·10	28·40	1471·89	10·92
	Total -	2,830	215	3,495	28	90	75·97	1234·98	9·89	31·80	—	—
Hyderabad Subsidiary Force.	Secunderabad -	2,276	131	1,833	20	63	57·56	805·36	8·78	27·68	1192·63	14·04
Nagpore Force	Kamptee - -	693	35	709	13	19	50·50	1023·09	18·76	27·42	1553·44	16·35
	Seetabuldee -	50	2	64	1	—	40·00	1280·00	20·00	—	1772·25	4·14
	Total -	743	37	773	14	19	49·79	1040·37	18·84	25·57	—	—

ABSTRACT No. XXIII.—*continued.*

Divisions.	Stations.	Average Strength.	Average constantly Sick.	Admitted.	Died in and out of Hospital.	Invalided.	Ratio per 1,000 of Strength.					
							Average constantly Sick.	Admitted.	Died (in and out).	Invalided.	Average of previous Period of 10 Years.	
											Admitted.	Died.
British Burmah Division.	Rangoon	742	51	954	8	33	68·73	1285·71	10·78	44·47	1265·23	14·64
	Thayetmyo	659	35	502	4	13	53·11	761·76	6·07	19·72	1074·67	16·65
	Toungoo	478	23	401	6	9	48·12	838·91	12·55	18·83	1064·98	13·63
	Port Blair	142	3	94	2	—	21·12	661·97	14·08	—	890·56	7·93
	Thoudoungee	12	—	2	—	—	—	166·66	—	—	—	—
	Total	2,033	112	1,953	20	55	55·09	960·65	9·83	27·05	—	—
Depôts	Poonamallee	161	47	276	3	46	291·92	1714·28	18·63	285·71	2200·25	53·57
	Wellington	614	32	419	4	12	52·12	682·41	6·51	19·54	1227·43	16·71
	Total	775	79	695	7	58	101·93	896·77	9·03	74·84	—	—
Marching	On the march	140		38	7	—	14·28	271·42	50·00	—	608·63	53·34

ABSTRACT No. XXIV.—Table, taken from the Report of the Principal Medical
in each of the Military Divisions in the Madras

Orders.	Military Divisions.	Eastern District.		Western District.		Bangalore Division and Ceded Districts.		Hyderabad Subsidiary Force.		Nagpore Force.		British Burmah Division.		Depôts.		On the March.		Total.	
	Average Strength - -	941		874		2,830		2,276		743		2,033		775		140		10,612	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*																		
	Febrile group—																		
	Eruptive Fevers Small-Pox -	1	—	—	—	3	—	4	1	—	—	1	—	—	—	—	—	9	1
	Eruptive Fevers Other - -	—	—	—	—	3	—	1	—	—	—	—	—	1	—	—	—	5	—
	Continued Fevers Enteric -	1	—	—	—	49	16	28	7	11	5	1	—	4	1	—	—	94	29
	Continued Fevers Other -	39	—	33	—	82	—	107	—	21	—	144	—	10	—	1	—	437	—
	Paroxysmal Fevers -	18	—	12	—	284	1	143	—	273	1	94	1	29	—	—	—	853	3
	Cholera - - -	—	—	—	—	1	1	5	5	10	3	—	—	—	—	3	1	19	10
	Other Diseases - -	—	—	2	1	3	—	3	—	—	—	1	—	—	—	—	—	9	1
	Total of Febrile group -	59	—	47	1	425	18	291	13	315	9	241	1	44	1	4	1	1,426	44
	Constitutional group—																		
	Rheumatism - -	11	—	23	—	100	—	30	—	13	—	69	—	13	—	—	—	259	—
	Primary syphilis - -	76	—	39	—	464	—	320	—	12	—	161	—	91	—	5	—	1,168	—
	Secondary „ - -	14	—	22	—	77	—	33	—	12	—	13	1	44	—	—	—	215	1
	Tubercular diseases -	5	1	—	—	9	1	8	1	4	—	16	1	15	1	—	1	57	6
	Scurvy and Purpura -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Other Diseases - -	—	—	4	—	8	2	1	—	14	—	1	—	5	—	—	—	33	2
	Total of constitutional group - - -	106	1	88	—	658	3	392	1	55	—	260	2	168	1	5	1	1,732	9
	II. *Local Diseases.*																		
	Diseases of the—																		
1	Nervous System - -	9	1	19	—	38	2	22	2	4	1	21	2	9	1	1	—	123	9
2	Eye - - - - -	17	—	9	—	54	—	25	—	14	—	28	—	12	—	—	—	159	—
3	Ear - - - - -	18	—	13	—	29	—	20	—	12	—	33	—	3	—	2	—	130	—
4	Nose - - -	—	—	—	—	2	—	—	—	1	—	—	—	—	—	—	1	3	—
5	Circulatory System -	15	—	23	—	67	—	26	—	11	—	47	—	9	—	1	—	199	1
6	Absorbent „ -	51	—	49	—	103	—	77	—	6	—	57	—	32	—	5	—	380	—
7	Ductless Glands - -	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—
8	Respiratory System -	21	—	35	—	92	2	28	—	19	1	65	1	19	—	1	2	280	4
9	Digestive „ -	213	4	218	3	691	1	287	1	144	3	564	7	221	2	9	—	2,347	23
10	Urinary System Gonorrhœa -	133	—	39	—	404	—	253	—	60	—	90	—	58	—	3	—	1,040	—
	Urinary System Sequelæ of Gonorr.	21	—	17	—	38	—	41	—	8	—	23	—	9	—	1	—	158	—
	Urinary System Other diseases -	7	—	6	—	18	1	12	1	3	—	11	—	7	1	—	—	64	3
11	Generative System -	17	—	12	—	38	—	24	—	7	—	26	—	6	—	—	—	130	—
12	Organs of Locomotion -	4	—	3	—	21	—	8	—	—	—	7	—	—	—	—	—	43	—
13	Cellular Tissue - -	18	—	26	—	53	—	15	—	14	—	56	1	9	—	—	—	191	1
14	Cutaneous System -	102	—	73	—	257	—	83	—	30	—	171	—	28	—	—	—	744	—
	III. *Debility* -	13	—	31	—	90	—	35	—	18	—	55	—	16	—	1	—	259	—
	IV. *Poisons* -	5	—	—	—	6	—	5	—	3	—	4	2	1	—	—	—	24	2
	V. *Injuries.*																		
1	General - - -	—	1	—	—	1	1	—	1	—	—	—	1	—	—	—	2	1	6
2	Local - - -	90	—	94	1	407	—	189	1	49	—	190	3	43	1	5	—	1,067	6
3	In action - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	No appreciable Disease -	8	—	1	—	2	—	—	—	—	—	4	—	1	—	—	—	16	—
	Cause unknown - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	General Total -	927	7	803	5	3,495	28	1,833	20	773	14	1,953	20	695	7	38	7	10,517	108

Officer, showing the Prevalence and Mortality of the different Classes of Disease Command, with the Ratios per 1,000 of the Strength.

Eastern District.		Western District.		Bangalore Division and Ceded Districts.		Hyderabad Subsidiary Force.		Nagpore Force.		British Burmah Division.		Depôts.		On the March.		Total.	
Ratio per 1,000 of Mean Strength.																	
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
1·06	—	—	—	1·06	—	1·76	0·44	—	—	0·49	—	—	—	—	—	0·86	0·09
—	—	—	—	1·06	—	0·44	—	—	—	—	—	1·29	—	—	—	0·47	—
1·06	—	—	—	17·31	5·65	12·30	3·07	14·81	6·73	0·49	—	5·16	1·29	—	—	8·86	2·74
41·44	—	37·76	—	28·98	—	47·01	—	28·26	—	70·83	—	12·90	—	7·14	—	41·18	—
19·13	—	13·73	—	100·35	0·35	62·83	—	367·43	1·34	46·23	0·49	37·42	—	—	—	80·38	0·28
—	—	—	—	0·35	0·35	2·20	2·20	13·46	4·04	—	—	—	—	21·42	7·14	1·79	0·94
—	—	2·29	1·14	1·06	—	1·32	—	—	—	0·49	—	—	—	—	—	0·85	0·09
62·70	—	53·78	1·14	150·18	6·36	127·86	5·71	423·96	12·11	118·54	0·49	56·77	1·29	28·56	7·14	134·38	4·14
11·69	—	26·32	—	35·34	—	13·18	—	17·49	—	33·93	—	16·77	—	—	—	24·41	—
80·77	—	44·62	—	163·96	—	140·60	—	16·15	—	79·19	—	117·42	—	35·71	—	110·06	—
14·88	—	25·17	—	27·21	—	14·50	—	16·15	—	6·39	0·49	56·77	—	—	—	20·26	0·09
5·31	1·06	—	—	3·18	0·35	3·51	0·44	5·39	—	7·87	0·49	19·36	1·29	—	7·14	5·37	0·57
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	4·58	—	2·83	0·70	0·44	—	18·84	—	0·49	—	6·45	—	—	—	3·11	0·19
112·65	1·06	100·69	—	232·51	1·06	172·23	0·44	74·02	—	127·88	0·98	216·77	1·29	35·71	7·14	163·21	0·85
9·56	1·06	21·74	—	13·43	0·70	9·67	0·88	5·39	1·34	10·33	0·98	11·61	1·29	7·14	—	11·59	0·85
18·07	—	10·30	—	19 08	—	10·98	—	18·84	—	13·77	—	15·49	—	—	—	14·98	—
19·13	—	14·87	—	10·25	—	8·79	—	16·15	—	16·23	—	3·87	—	14·29	—	12·25	—
—	—	—	—	0·70	—	—	—	1·34	—	—	—	—	—	—	—	0·28	—
15·94	—	26·32	—	23·68	—	11·42	—	14·81	—	23·12	—	11·61	—	7·14	7·14	18·75	0·09
54·20	—	56·06	—	36·40	—	33·83	—	8·07	—	28·04	—	41·29	—	35·72	—	35·81	—
—	—	—	—	0·35	—	—	—	—	—	—	—	—	—	—	—	0·09	—
22·31	—	40·05	—	32·51	0·70	12·30	—	25·57	1·34	31·97	0·49	24·52	—	7·14	—	26·39	0·38
226·35	4·25	249·43	3·43	244·17	0·35	126·10	0·44	193·81	4·04	277·42	3·44	285·16	2·58	64·29	14·29	221·16	2·17
141·34	—	44·62	—	142·76	—	111·16	—	80·75	—	44·27	—	74·84	—	21·43	—	98·00	—
22·31	—	19·45	—	13·43	—	18·01	—	10·77	—	11·31	—	11·61	—	7·14	—	14·89	—
7·44	—	6·86	—	6·36	0·35	5·27	0·44	4·04	—	5·41	—	9·03	1·29	—	—	6·03	0·28
18·07	—	13·73	—	13·43	—	10·55	—	9·42	—	12·79	—	7·74	—	—	—	12·25	—
4·25	—	3·43	—	7·42	—	3·52	—	—	—	3·44	—	—	—	—	—	4·05	—
19·13	—	29·74	—	18·73	—	6·59	—	18·84	—	27·55	0·49	11·61	—	—	—	18·00	0·09
108·40	—	83·52	—	90·81	—	36·47	—	40·38	—	84·11	—	36·13	—	—	—	70·11	—
13·82	—	35·47	—	31·80	—	15·38	—	24·22	—	27·05	—	20·65	—	7·14	—	24·41	—
5·31	—	—	—	2·12	—	2·20	—	4·04	—	1·97	0·98	1·29	—	—	—	2·26	0·19
—	1·06	—	—	0·35	0·35	—	0·44	—	—	—	0·49	—	—	—	14·29	0·09	0·57
95·65	—	107·55	1·14	143·81	—	83·04	0·44	65·95	—	93·46	1·48	55·46	1·29	35·72	—	100·55	0·56
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8·50	—	1·14	—	0·70	—	—	—	—	—	1·97	—	1·29	—	—	—	1·51	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
965·12	7·44	918·76	5·72	1234·08	9·89	805·37	8·79	1040·37	18·83	960·64	9·83	896·77	9·03	271·42	50·00	991·05	10·18

ABSTRACT No. XXV.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER showing the STATIONS in the MADRAS COMMAND at which the ADMISSIONS and DEATHS from ENTERIC FEVER took place in each of the four quarters of the year 1883.

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Eastern District -	St. Thomas Mount.	—	—	—	—	—	—	1	—	1	—
Bangalore Division and Ceded District	Bangalore -	3	1	11	2	24	8	3	—	41	11
	Bellary -	—	1	—	—	5	—	3	4	8	5
	Wellington	—	—	1	1	3	—	—	—	4	1
Hyderabad Subsidiary Force.	Secunderabad	4	1	2	1	18	4	4	1	28	7
Nagpore Force	Kamptee -	—	—	—	—	8	3	2	1	10	4
	Seetabuldee	—	—	—	—	1	1	—	—	1	1
British Burmah Division.	Thayetmyo	—	—	—	—	1	—	—	—	1	—
	Total -	7	3	14	4	60	16	13	6	94	29

ABSTRACT No. XXVI.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER showing the STATIONS in the MADRAS COMMAND at which the ADMISSIONS and DEATHS from CHOLERA took place in each of the four quarters of the year 1883.

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Bangalore Division and Ceded District.	Bellary -	1	1	—	—	—	—	—	—	1	1
Hyderabad Subsidiary Force.	Secunderabad	1	1	—	—	1	1	3	3	5	5
Nagpore Force -	Kamptee -	—	—	—	—	8	3	—	—	8	3
	Seetabuldee	—	—	—	—	2	—	—	—	2	—
	On the march	—	—	—	—	—	—	3	1	3	1
	Total -	2	2	—	—	11	4	6	4	19	10

ABSTRACT No. XXVII.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER showing the prevalence of DYSENTERY, DIARRHŒA, and HEPATITIS in each of the DIVISIONS in the MADRAS COMMAND for 1883:—

Circles.	Eastern District.		Western District.		Bangalore Division and Ceded Districts.		Hyderabad Subsidiary Force.		Nagpore Force.		British Burmah Division.		On the March.		Total.	
Strength.	1,102		874		3,444		2,276		743		2,033		140		10,612	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Dysentery - - - - - -	118	—	47	—	102	—	71	—	35	1	137	2	3	—	513	3
Diarrhœa - - - - - -	43	—	32	—	203	—	53	—	58	—	65	—	2	—	456	—
Hepatitis and Abscess of Liver - -	97	4	23	3	53	1	35	1	8	2	118	5	1	1	335	17
Total - - - -	258	4	102	3	358	1	159	1	101	3	320	7	6	1	1,304	20
Ratio per 1,000 of Strength.																
Dysentery - - - - - -	107·08	—	53·78	—	29·62	—	31·19	—	47·11	1·35	67·39	0·98	21·43	—	48·34	0·28
Diarrhœa - - - -	39·02	—	36·61	—	58·94	—	23·29	—	78·06	—	31·97	—	14·29	—	42·97	—
Hepatitis and Abscess of Liver - -	88·02	3·63	26·32	3·43	15·39	0·29	15·38	0·44	10·77	2·69	58·04	2·46	7·14	7·14	31·57	1·60
Total - - - -	234·12	3·63	116·71	3·43	103·95	0·29	69·86	0·44	185·94	4·04	157·40	3·44	42·86	7·14	122·88	1·88

ABSTRACT No. XXVIII.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER showing the PREVALENCE and MORTALITY in the MADRAS COMMAND, due to DYSENTERY, DIARRHŒA, and HEPATITIS, in each Quarter of the Year 1883.

—		Dysentery.				Diarrhœa.				Hepatitis (including Abscess of the Liver).				Total.			
		Number.		Ratio per 1,000 of the Strength.		Number.		Ratio per 1,000 of the Strength.		Number.		Ratio per 1,000 of the Strength.		Number.		Ratio per 1,000 of the Strength.	
	Strength.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
1st Quarter -	10,926	122	—	11·17	—	87	—	7·96	—	79	6	7·23	0·55	288	6	26·36	0·55
2nd „ -	10,588	101	2	9·54	0·19	125	—	11·80	—	56	3	5·29	0·28	282	5	26·63	0·47
3rd „ -	10,428	181	—	17·36	—	156	—	14·96	—	114	4	10·93	0·38	451	4	43·25	0·38
4th „ -	10,507	109	1	10·37	0·09	88	—	8·38	—	86	4	8·18	0·38	283	5	26·93	0·47
Total for the Year -	10,612*	513	3	48·34	0·28	456	—	42·97	—	335	17	31·57	1·60	1,304	20	122·88	1·88

* Average Annual Strength.

ABSTRACT XXIX.

ABSTRACT No. XXIX.—The following TABLE taken from the REPORT of the
for the YEAR under REPORT

Years.	Average Strength.			Number of Deaths.		
	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.
1873 - - -	422	1,785	10,181	6	24	187
1874 - - -	419	1,785	10,215	3	27	122
1875 - - -	398	1,698	9,779	11	32	131
1876 - - -	405	1,670	9,671	7	31	143
1877 - - -	454	1,700	9,641	6	46	142
1878 - - -	442	1,665	9,491	9	55	178
1879 - - -	433	1,660	9,744	3	33	140
1880 - - -	473	1,611	9,503	5	8	92
1881 - - -	425	1,555	9,108	4	21	93
1882 - - -	525	1,205	10,001	3	19	95
Average for 10 years -	439	1,633	9,733	5	29	132
1883 - - -	388	1,213	9,426	3	28	80

PRINCIPAL MEDICAL OFFICER of **MADRAS**, shows the comparative **MORTALITY** and for the **TEN** previous **YEARS**.

Invalided.			Ratio per 1,000 of Strength.					
			Deaths.			Invalids.		
Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.
37	42	367	14·22	13·14	18·37	87·68	23·53	36·05
33	48	555	7·16	15·12	11·94	78·76	26·89	54·83
38	61	532	27·64	18·84	13·39	95·48	35·92	54·39
34	65	413	17·28	18·56	14·79	83·95	38·92	42·70
33	63	447	13·22	27·05	14·73	72·69	37·59	46·35
29	57	441	20·36	33·03	18·75	65·61	34·23	46·46
26	62	405	6·93	19·88	14·36	60·05	37·35	41·56
40	12	226	10·57	4·96	9·68	84·56	7·45	23·78
24	33	253	9·41	13·51	10·21	56·47	21·22	27·78
27	44	277	5·71	15·77	9·49	51·43	36·51	27·70
32	48	391	12·97	18·12	13·59	73·02	29·81	40·23
26	48	299	7·73	23·08	8·48	67·01	39·57	31·72

ABSTRACT No. XXX.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS
TROOPS stationed at BOMBAY during the Year 1883, with the Ratios

Orders.	Average Strength, 11,183.	Admissions into Hospital.	Deaths.			Invalids.		Average Number constantly Sick.
	Diseases.		In the Command.	Of Invalids.	Total.	Number sent Home.	Number finally Discharged the Service.	
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox	10	1	—	1	—	—	·82
	Eruptive Fevers { Other -	2	—	—	—	—	—	.05
	Continued „ { Enteric -	60	15	1	16	—	—	7·65
	Continued „ { Other -	532	—	—	—	2	—	17·64
	Yellow Fever - -	—	—	—	—	—	—	—
	Paroxysmal Fevers -	4,234	10	—	10	36	—	122·04
	Cholera - - -	15	9	—	9	—	—	·26
	Other diseases - -	25	—	—	—	—	—	1·20
	Total - -	4,878	35	1	36	38	—	149·66
	Constitutional Group.							
	Rheumatism - -	371	—	—	—	16	1	20·76
	Primary Syphilis - -	691	—	—	—	—	—	52·87
	Secondary „ - -	224	—	—	—	21	2	18·90
	Tubercular diseases -	77	6	7	13	25	16	7·34
	Scurvy and Purpura -	12	—	—	—	—	—	·63
	Other diseases - -	26	5	—	5	6	4	1·89
	Total - -	1,401	11	7	18	68	23	102·39
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	172	18	1	19	28	3	12·11
2	Eye - - -	151	—	—	—	5	5	9·11
3	Ear - - -	127	—	—	—	7	8	6·45
4	Nose - - -	5	—	—	—	—	—	·24
5	Circulatory System -	274	7	1	8	79	31	27·98
6	Absorbent „ - -	110	—	—	—	2	—	9·47
7	Ductless Glands -	—	—	—	—	—	—	—
8	Respiratory System -	488	11	2	13	15	8	23·55
9	Digestive „ - -	2,038	20	3	23	51	4	83·54
10	Urinary System { Gonorrhœa -	1,073	—	—	—	—	—	66·75
	Urinary System { Sequelæ of Gonorr.	180	—	—	—	2	—	12·75
	Urinary System { Other diseases -	92	1	1	2	4	2	4·76
11	Generative System - -	92	—	—	—	2	1	5·60
12	Organs of Locomotion -	66	—	—	—	8	4	4·20
13	Cellular Tissue - -	142	—	—	—	—	—	7·47
14	Cutaneous System - -	698	—	—	—	10	3	32·03
	III.—*Debility* -	414	—	—	—	86	19	26·30
	IV.—*Poisons* -	56	3	—	3	—	—	1·33
	V.—*Injuries.*							
1	General - - -	2	3	—	3	1	—	·09
2	Local - - -	1,196	7	—	7	15	6	45·85
3	In action - - -	—	—	—	—	—	—	—
	No appreciable disease -	24	—	—	—	—	—	·61
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—
	General Total -	13,679	116	16	132	421	117	632·24
	Average for 10 years, 1873–82	—	—	—	—	—	—	—

The average ratios for 10 years will be given in future years. The average ratios for the five years 1879 into **Hospital**, **Deaths**, **Numbers Invalided** and **Constantly Sick** among the per 1,000 of the Strength, and the Average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000, from 1879 to 1882.				
Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids sent Home.	Invalids finally Discharged.	Constantly Sick.
·9	·09	—	—	·07	.2	·03	—	—	·06
·2	—	—	—	—	·9	—	—	—	
5·4	1·43	—	—	·69	4·0	2·22	·10	—	3·77
47·6	—	·18	—	1·58	132·4	·20	·03	—	
—	—	—	—	—	—	—	—	—	—
378.6	·89	3·22	—	10·91	794·4	1·96	8·60	·05	17·97
1·3	·81	—	—	·02	·4	·33	—	—	—
2·2	—	—	—	·11	5·0	·20	—	·03	·21
436·2	3·22	3·40	—	13·38	937·3	4·94	8·73	·08	22·01
33·2	—	1·43	·09	1·86	35·3	·18	1·68	·46	1·73
61·8	—	—	—	4·73	89·0	·03	—	—	6·12
20·0	—	1·88	·18	1·69	23·1	—	1·38	·76	1·63
6·9	1·16	2·23	1·43	·66	7·3	1·22	2·70	2·27	·73
1·1	—	—	—	·05	1·4	·03	—	--	·06
2·3	·45	·54	·36	·17	4·4	·10	·53	·23	·30
125·3	1·61	6·08	2·06	9·16	160·5	1·55	6·29	3·72	10·57
15·4	1·70	2·50	·27	1·08	15·3	1·83	2·75	·79	·98
13·5	—	·45	·45	·82	15·3	—	·66	·87	·77
11·4	—	·63	·71	·58	10·4	—	·48	·61	·40
·4	—	—	—	·02	·7	—	—	—	·04
24·5	·71	7·06	2·77	2·50	14·6	·66	3·74	3·51	1·08
9·8	—	·18	—	·85	23·2	—	—	—	1·89
—	—	—	—	—	·2	—	·03	·03	·06
43·6	1·16	1·34	·71	2·10	54·1	1·68	1·24	·97	2·55
182·3	2·06	4·56	·36	7·47	218·8	3·79	7·36	2·39	8·07
96·0	—	—	—	5·97	98·0	—	—	—	5·64
16·1	—	·18	—	1·14	15·9	—	·08	·10	·96
8·2	·18	·36	·18	·43	10·2	·25	·46	·23	·54
8·2	—	·18	·09	·50	10·8	—	·20	·20	·48
5·9	—	·71	·36	·38	3·8	·08	·39	·53	·24
12·7	—	—	—	·67	18·9	·03	·05	·08	·81
62·4	—	·89	·27	2·86	71·7	—	·25	·25	2·67
37·0	—	7·69	1·70	2·35	45·7	·08	16·06	3·89	2·20
5·0	·27	—	—	·12	5·7	·15	—	—	·13
·2	·27	·09	—	·01	·4	·69	—	—	·02
107·0	·63	1·34	·53	4·10	102·5	·94	·79	·69	3·47
—	—	—	—	—	·3	—	·23	—	·02
2·1	—	—	—	·05	1·2	—	—	—	·05
—	—	—	—	—	—	—	—	—	—
1223·2	11·80	37·64	10·46	56·54	1835·5	16·67	49·79	18·94	65·65
1565·6	16·08	49·39	16·23	59·26	—	—	—	—	—

to 1883 will be given in the Report for 1884, those for the six years 1879 to 1884 in that for 1885, &c., &c.

ABSTRACT No. XXXI.—The following TABLE, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, shows the ADMISSIONS and DEATHS in the PRINCIPAL STATIONS in the BOMBAY COMMAND.

Administrative Circles.	Stations.	Average Annual Strength.	Number of Admissions.	Number of Deaths.	Ratio per 1,000 of the Strength.			
					Admissions.	Deaths.	Average of 10 Years, 1873–82. Admissions.	Average of 10 Years, 1873–82. Deaths.
Presidency	Colaba	717	743	8	1036·3	11·16	1960·3	18·99
	Deolalee	682	626	14	917·9	20·53	1483·3	17·85
	Belgaum	693	562	5	811·0	7·21	1168·3	7·52
	Aden	825	612	6	741·8	7·27	1025·2	14·13
Sind	Karachi	621	914	10	1471·8	16·10	1877·9	17·44
	Hyderabad	386	440	2	1139·9	5·18	1575·3	9·89
Poona	Poona	1,107	1,066	8	963·0	7·23	1639·5	11·75
	Kirkee	679	655	2	964·6	2·94	1580·6	12·02
	Ahmednagar	563	787	11	1397·9	19·54	1567·8	12·84
	Satara	142	263	3	1852·1	21·13	1447·6	7·47
	Kholapur	88	77	2	875·0	22·73	1408·1	13·77
	Khandalla	41	25	—	609·7	—	1869·0	16·11
Mhow	Mhow	1,237	2,236	10	1807·6	8·08	1765·8	10·68
	Nasserabad	617	1,191	6	1930·3	9·72	1663·3	22·84
	Neemuch	370	692	2	1870·3	5·40	2294·3	23·39
	Asirgurh	125	177	3	1416·0	24·00	1740·2	15·48
	Indore	116	236	2	2034·5	17·24	2031·8	16·42
	Ahmedabad	165	198	1	1200·0	6·06	1981·0	22·62
	Baroda	169	336	—	1988·2	—	2629·9	27·82
	Deesa	205	166	—	809·7	—	1405·4	15·33
	Khundwa	2	2	1	1000·0	500·00	—	—
Quetta	Quetta	1,215	1,144	16	941·6	13·17	—	—
	Sanitaria	199	424	3	2130·6	15·07	1838·2	27·20
	On March	219	107	1	488·6	4·57	885·0	11·62
	Total	11183	13679	116	1223·2	10·37	—	—

ABSTRACTS XXXII. to XXXVI.

ABSTRACT No. XXXII.—Table taken from the Report of the Principal Medical of Diseases in each of the Administrative Circles in the Bombay

	Military Divisions	Presidency.		Sind.		Poona.		Mhow.		Quetta.		Sanitaria.		Troops on March.		Total.	
	Average Strength	2,917		1,007		2,620		3,006		1,215		199		219		11,183	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*																
	Febrile Group.																
	Eruptive Fevers	2	—	—	—	8	1	2	—	—	—	—	—	—	—	12	1
	Continued „	107	2	99	2	214	3	133	3	28	5	9	—	2	—	502	15
	Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Paroxysmal Fevers	475	1	259	1	554	4	2,522	4	267	—	140	—	17	—	4,234	10
	Cholera	8	2	—	—	7	4	4	2	—	—	—	—	1	1	15	9
	Other diseases	11	—	—	—	4	—	3	—	6	—	1	—	—	—	25	—
	Total of Febrile group	598	5	358	3	787	12	2,664	9	301	5	150	—	20	1	4,878	35
	Constitutional Group.																
	Rheumatism	59	—	26	—	86	—	132	—	50	—	16	—	2	—	371	—
	Primary Syphilis	155	—	103	—	173	—	189	—	55	—	9	—	7	—	691	—
	Secondary „	62	—	24	—	74	—	34	—	15	—	13	—	2	—	224	—
	Tubercular diseases	39	5	6	1	10	—	17	—	2	—	2	—	1	—	77	6
	Scurvy and Purpura	—	—	1	—	7	—	1	—	1	—	2	—	—	—	12	—
	Other diseases	7	2	1	1	7	1	8	—	2	—	1	1	—	—	26	5
	Total of Constitutional Group.	322	7	161	2	357	1	381	—	125	—	43	1	12	—	1,401	11
	II. *Local Diseases.*																
	Diseases of the—																
1	Nervous System	54	6	16	1	37	2	38	7	21	1	5	1	1	—	172	18
2	Eye	46	—	38	—	28	—	33	—	4	—	2	—	—	—	151	—
3	Ear	16	—	21	—	29	—	51	—	7	—	3	—	—	—	127	—
4	Nose	1	—	—	—	—	—	4	—	—	—	—	—	—	—	5	—
5	Circulatory System	48	3	10	—	88	2	70	2	53	—	4	—	1	—	274	7
6	Absorbent „	32	—	9	—	24	—	27	—	4	—	10	—	4	—	110	—
7	Ductless Glands	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	Respiratory System	53	2	80	2	124	3	112	—	106	4	11	—	2	—	488	11
9	Digestive „	436	5	239	4	438	5	586	3	251	2	74	1	14	—	2,038	20
10	Urinary System. Gonorrhœa	266	—	87	—	330	—	283	—	67	—	20	—	20	—	1,073	—
	Urinary System. Sequelæ of Gon.	63	—	25	—	36	—	44	—	9	—	2	—	1	—	180	—
	Urinary System. Other diseases	27	—	12	—	17	1	31	—	3	—	1	—	1	—	92	1
11	Generative System	17	—	10	—	22	—	32	—	7	—	4	—	—	—	92	—
12	Organs of Locomotion	20	—	5	—	23	—	15	—	1	—	2	—	1	—	67	—
13	Cellular Tissue	39	—	11	—	35	—	32	—	20	—	3	—	2	—	142	—
14	Cutaneous System	152	—	88	—	135	—	255	—	55	—	9	—	4	—	698	—
	III. *Debility*	48	—	51	—	98	—	145	—	19	—	51	—	2	—	414	—
	IV. *Poisons*	24	—	6	—	9	—	14	2	2	1	1	—	—	—	56	3
	V. *Injuries.*																
1	General	—	2	1	—	1	—	—	1	—	—	—	—	—	—	2	3
2	Local	272	3	122	—	248	—	414	1	89	3	29	—	21	—	1,195	7
3	In action	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	No appreciable disease	9	—	4	—	7	—	3	—	—	—	—	—	1	—	24	—
	Cause unknown (refers to deaths only).	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	2,543	33	1,354	12	2,873	26	5,234	25	1,144	16	424	3	107	1	13,679	116

OFFICER, showing the PREVALENCE and MORTALITY of the Different Classes COMMAND, with the Ratios per 1,000 of the Strength.

Presidency.		Sind.		Poona.		Mhow.		Quetta.		Sanitaria.		Troops on March.		Total.	
Ratio per 1,000 of mean Strength.															
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
·7	—	—	—	3·1	·38	·7	—	—	—	—	—	—	—	1·1	·09
36·7	·68	98·3	1·99	81·7	1·14	44·2	1·00	23·0	4·11	45·2	—	9·1	—	52·9	1·34
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
162·8	·34	257·3	·99	211·4	1·53	839·0	1·33	219·7	—	703·5	—	77·6	—	378·6	·89
1·0	·68	—	—	2·7	1·53	1·3	·66	—	—	—	—	4·6	4·57	1·3	·80
3·8	—	—	—	1·5	—	1·0	—	4·9	—	5·0	—	—	—	2·2	—
205·0	1·71	355·5	2·98	300·4	4·58	886·2	2·99	247·7	4·11	753·8	—	91·3	4·57	436·2	3·13
20·2	—	25·8	—	32·8	—	43·9	—	41·1	—	80·4	—	9·1	—	33·2	—
53·1	—	102·3	—	66·0	—	62·9	—	45·3	—	45·2	—	32·0	—	61·8	—
21·2	—	23·8	—	28·2	—	11·3	—	12·3	—	65·3	—	9·1	—	20·0	—
13·4	1·71	5·9	·99	3·8	—	5·6	—	1·6	—	10·1	—	4·6	—	6·8	·54
—	—	1·0	—	2·7	—	·3	—	·8	—	10·1	—	—	—	1·1	—
2·4	·68	1·0	·99	2·7	·38	2·7	—	1·6	—	5·0	5·02	—	—	2·3	·45
110·4	2·40	159·9	1·99	136·2	·38	126·7	—	102·9	—	216·1	5·02	54·8	—	125·3	·98
18·8	2·06	15·9	·90	14·1	·76	12·6	2·33	17·3	·82	25·1	5·02	4·6	—	15·4	1·61
15·8	—	37·7	—	10·7	—	11·0	—	3·3	—	10·1	—	—	—	13·5	—
5·5	—	20·8	—	11·1	—	16·9	—	5·8	—	15·1	—	—	—	11·4	—
·3	—	—	—	—	—	1·3	—	—	—	—	—	—	—	0·4	—
16·4	1·03	9·9	—	33·6	·76	23·3	·66	43·6	—	20·1	—	4·6	—	24·6	·62
11·3	—	8·9	—	9·2	—	9·0	—	3·3	—	50·2	—	18·3	—	9·8	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18·1	·68	79·4	1·99	47·3	1·14	37·2	—	87·2	3·29	55·3	—	9·1	—	43·6	·98
149·5	1·71	237·3	3·96	167·2	1·90	194·9	1·00	206·6	1·65	371·8	5·02	63·9	—	182·3	1·79
91·2	—	86·4	—	125·9	—	94·1	—	55·1	—	100·5	—	91·3	—	95·9	—
21·6	—	21·8	—	13·7	—	14·6	—	7·4	—	10·1	—	4·6	—	16·1	—
9·2	—	11·9	—	6·5	·38	10·3	—	2·5	—	5·0	—	4·6	—	8·2	·09
5·8	—	9·9	—	8·4	—	10·6	—	5·8	—	20·1	—	—	—	8·2	—
6·8	—	5·0	—	8·8	—	5·0	—	·8	—	10·1	—	4·6	—	6·0	—
13·4	—	10·9	—	13·3	—	10·6	—	16·5	—	15·1	—	9·1	—	12·7	—
52·1	—	87·4	—	51·5	—	84·8	—	45·3	—	45·2	—	18·3	—	63·4	—
16·4	—	50·6	—	37·4	—	48·2	—	15·7	—	256·3	—	9·1	—	37·0	—
8·2	—	5·9	—	3·5	—	4·7	·66	1·6	·82	5·0	—	—	—	5·0	·27
—	·68	1·0	—	·4	—	—	·33	—	—	—	—	—	—	0·2	·27
92·5	1·03	121·1	—	94·6	—	137·7	·33	73·2	2·47	145·7	—	95·9	—	106·9	·62
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3·1	—	4·0	—	2·7	—	1·0	—	—	—	—	—	4·6	—	2·1	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
871·8	11·31	1344·6	11·91	1008·6	9·92	1740·1	8·32	941·6	13·17	2130·6	15·07	488·6	4·57	1223·2	10·37

ABSTRACT No. XXXIII.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER showing the STATIONS in the BOMBAY COMMAND at which the ADMISSIONS and DEATHS from ENTERIC FEVER took place in each of the four quarters of the Year 1883.

Circles.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Presidency	Colaba	1	—	—	1	1	1	—	—	2	2
	Deolalee	—	—	1	—	—	—	—	—	1	—
	Aden	3	—	1	—	—	—	—	—	4	—
Sind	Karachi	5	—	1	—	17	2	2	—	25	2
Poona	Poona	1	1	—	—	2	1	—	—	3	2
	Ahmednagar	5	1	—	—	—	—	—	—	5	1
Mhow	Mhow	1	—	—	1	1	1	—	—	2	2
	Nasirabad	—	—	—	—	1	—	—	—	1	—
	Indore	—	—	1	1	2	—	—	—	3	1
	Deesa	—	—	—	—	1	—	—	—	1	—
Quetta	Quetta	2	—	3	2	5	1	3	2	13	5
	Total	18	2	7	5	30	6	5	2	60	15

ABSTRACT No. XXXIV.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER showing the STATIONS in the BOMBAY COMMAND at which the ADMISSIONS and DEATHS from CHOLERA took place in each of the four quarters of the Year 1883.

Circles.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Presidency	Deolalee	—	—	3	2	—	—	—	—	3	2
Poona	Poona	—	—	—	—	—	—	2	—	2	—
	Ahmednagar	—	—	—	—	5	4	—	—	5	4
Mhow	Mhow	—	—	—	—	1	—	—	—	1	—
	Nasirabad	—	—	—	—	2	1	—	—	2	1
	Indore	—	—	—	—	1	1	—	—	1	1
	On the March	—	—	—	—	—	—	1	1	1	1
	Total	—	—	3	2	9	6	3	1	15	9

ABSTRACT No. XXXV.—Table taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the PREVALENCE of DYSENTERY, DIARRHŒA, and HEPATITIS in each of the ADMINISTRATIVE CIRCLES in the BOMBAY COMMAND for the Year 1883.

Divisions.	Presidency.		Sind.		Poona.		Mhow.		Quetta.		On March.		Total.	
Strength.	2,917		1,007		2,702		3,123		1,215		219		11,183	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Dysentery - -	64	3	22	1	26	—	49	1	27	1	5	—	193	6
Diarrhœa - -	88	—	51	—	64	—	165	—	52	—	5	—	425	—
Hepatitis and Abscess of Liver.	54	1	12	3	44	3	30	2	25	1	1	—	166	10
Total -	206	4	85	4	134	3	244	3	104	2	11	—	784	16
Ratio per 1,000 of Strength.														
Dysentery - -	21·9	1·03	21·8	·99	9·6	—	15·7	·32	22·2	·82	22·8	—	17·2	·54
Diarrhœa - -	30·2	—	50·6	—	23·7	—	52·8	—	42·8	—	22·8	—	38·0	—
Hepatitis and Abscess of Liver -	18·8	·34	11·9	2·98	16·2	1·11	9·6	·64	20·6	·82	4·6	—	14·9	·89
Total -	70·6	1·37	84·4	3·96	49·6	1·11	78·1	·96	85·6	1·65	50·2	—	70·1	1·43

ABSTRACT No XXXVI.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER showing the PREVALENCE and MORTALITY in the BOMBAY COMMAND, due to DYSENTERY, DIARRHŒA, and HEPATITIS, in each Quarter of the Year 1883.

Quarters.	Strength.	Dysentery.				Diarrhœa.				Hepatitis and Abscess of Liver.				Total.			
		Number.		Ratio per 1,000 of the Strength.		Number.		Ratio per 1,000 of the Strength.		Number.		Ratio per 1,000 of the Strength.		Number.		Ratio per 1,000 of the Strength.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
1st Quarter -	12,102	51	1	4·2	·08	73	—	6·0	—	42	1	3·5	·08	166	2	13·7	·16
2nd „ -	11,455	40	—	3·5	—	129	—	11·3	—	41	4	3·6	·35	210	4	18·3	·35
3rd „ -	10,309	68	4	6·6	·39	160	—	15·5	—	49	—	4·7	—	277	4	26·9	·39
4th „ -	10,866	34	1	3·1	·09	63	—	5·8	—	34	5	3·1	·46	131	6	12·0	·55
Total for Year -	11,183	193	6	17·2	·54	425	—	38·0	—	166	10	14·9	·89	784	16	70·1	1·43

ABSTRACT XXXVII.

ABSTRACT No. XXXVII.—TABLE taken from the REPORT of the PRINCIPAL
INVALIDING in the THREE GRADES of COMMISSIONED OFFICERS, NON-
Ten previous Years :

Years.	Average Strength.			Number of Deaths.		
	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.
1873 - - -	397	1,150	9,523	7	16	109
1874 - - -	385	1,139	9,439	1	16	97
1875 - - -	363	1,163	9,170	7	33	181
1876 - - -	368	1,173	9,111	5	18	110
1877 - - -	375	1,160	8,989	4	13	108
1878 - - -	364	1,316	8,588	3	34	166
1879 - - -	373	1,282	8,502	3	21	136
1880 - - -	366	1,279	7,921	4	42	168
1881 - - -	314	1,213	8,773	5	19	108
1882 - - -	306	1,186	9,011	6	17	89
Average for 10 years -	361	1,206	8,903	5	23	127
1883 - - -	389	1,324	9,859	2	18	98

Medical Officer at **Bombay**, showing the **Comparative Mortality** and **commissioned Officers**, and **Privates** for the Year under Report, and for the

Invalided.			Ratio per 1,000.					
			Deaths.			Invalids.		
Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.	Commissioned Officers.	Non-commissioned Officers.	Privates.
38	47	379	17·63	13·91	11·44	95·72	40·87	39·80
27	65	376	12·59	14·05	10·28	70·13	51·07	39·83
33	55	573	11·02	28·37	19·74	90·91	47·29	62·49
43	49	433	13·59	13·59	15·27	116·85	41·56	47·52
35	63	427	10·67	10·67	11·21	93·33	54·31	47·50
44	86	492	8·24	25·84	19·33	120·88	65·35	57·29
20	75	521	8·04	16·38	15·99	53·62	58·50	61·28
21	51	427	10·92	32·83	21·20	57·37	39·87	53·90
22	75	449	15·92	15·66	12·30	70·06	61·83	51·18
15	48	310	19·61	14·33	9·88	49·02	40·47	34·40
30	61	439	13·85	19·07	14·27	83·10	50·58	49·41
21	57	364	5·90	13·59	9·94	61·95	43·05	36·92

ABSTRACT No. XXXVIII.—TABLE showing the AVERAGE STRENGTH, ADMISSIONS
TROOPS stationed in EGYPT during the Year 1883, with the

Orders.	Average Strength, 7,897.	Admissions into Hospital.	Deaths.			Invalids.		Average number constantly Sick.
	Diseases. •		In the Command.	Of invalids.	Total.	Number sent Home.	Number finally discharged the Service.	
	I.—*General Diseases.*							
	Febrile Group.							
	Eruptive Fevers { Small-pox -	8	2	1	3	—	—	·80
	Eruptive Fevers { Other -	21	—	—	—	—	—	·38
	Continued - { Enteric -	258	49	1	50	153	—	47·91
	Continued - { Other -	1,197	—	1	1	44	—	66·01
	Yellow Fever - - -	—	—	—	—	—	—	—
	Paroxysmal Fevers - -	135	—	—	—	4	—	8·29
	Cholera - - -	183	139	—	139	—	—	3·79
	Other Diseases - -	14	—	—	—	1	—	1·27
	Total of Febrile Group -	1,816	190	3	193	202	—	128·45
	Constitutional Group.							
	Rheumatism - - -	237	—	—	—	18	8	17·53
	Primary Syphilis - -	1,501	—	—	—	9	—	118·35
	Secondary „ - - -	157	—	—	—	13	1	15·05
	Tubercular Diseases - -	68	7	6	13	17	12	9·01
	Scurvy and Purpura - -	2	—	—	—	—	—	·10
	Other diseases - - -	6	—	—	—	2	—	·67
	Total of Constitutional Group -	1,971	7	6	13	59	16	160·71
	II.—*Local Diseases.*							
	Diseases of the—							
1	Nervous System - -	135	13	—	13	38	7	11·96
2	Eye - - - - -	278	—	—	—	8	10	14·61
2	Ear - - - - -	97	—	—	—	10	10	5·23
4	Nose - - - - -	2	—	—	—	—	—	·13
5	Circulatory System - -	157	1	1	2	55	32	17·17
6	Absorbent - - -	154	—	—	—	17	1	15·20
7	Ductless Glands - -	—	—	—	—	—	—	—
8	Respiratory System - -	418	8	2	10	10	8	28·67
9	Digestive - - -	1,609	19	5	24	86	8	78·67
10	Urinary System { Gonorrhœa - -	536	—	—	—	—	—	34·99
	Urinary System { Sequelæ of Gonorrhœa	63	—	—	—	1	—	3·76
	Urinary System { Other diseases -	75	1	1	2	5	1	4·54
11	Generative System - -	67	—	—	—	4	4	4·75
12	Organs of Locomotion - -	54	—	—	—	11	5	3·58
13	Cellular Tissue - - -	186	—	—	—	5	1	8·42
14	Cutaneous System - -	428	—	—	—	6	3	22·84
	III.—*Debility.*	393	1	—	1	144	12	30·79
	IV.—*Poisons.*	22	1	—	1	—	—	·62
	V.—*Injuries.*							
1	General - - - -	1	6	—	6	—	—	—
2	Local - - - -	518	10	—	10	8	7	25·35
3	In action - - -	—	—	—	—	—	51	—
	No appreciable disease - -	15	—	—	—	—	—	·30
	Cause unkwn. (refers to death only)	—	—	—	—	—	—	—
	General total - -	8,995	257	18	275	669	176	600·74

• The average ratios for 10 years will be given in future years. The average ratios for the year 1883, will be into HOSPITAL, DEATHS, NUMBER INVALIDED and CONSTANTLY SICK among the Ratios per 1,000 of the Strength and the average Ratios for 10 Years.*

Ratio per 1,000.					Average Ratio per 1,000 from 18 to 18 .				
Admissions.	Deaths.	Invalids Sent Home.	Invalids finally discharged.	Constantly Sick.	Admissions.	Deaths.	Invalids Sent Home.	Invalids finally discharged.	Constantly Sick.
1·0	·38	—	—	·10					
2·6	—	—	—	·05					
32·7	6·33	19·37	—	6·07					
151·6	·13	5·57	—	8·36					
—	—	—	—	—					
17·1	—	·51	—	1·05					
23·2	17·60	—	—	·48					
1·8	—	·13	—	·16					
230·0	24·44	25·58	—	16·27					
30·0	—	2·28	·38	2·22					
190·1	—	1·14	—	14·99					
19·9	—	1·64	·13	1·91					
8·6	1·64	2·15	1·52	1·14					
·2	—	—	—	·01					
·8	—	·25	—	·08					
249·6	1·64	7·47	2·03	20·35					
17·1	1·64	4·81	·88	1·51					
35·2	—	1·01	1·27	1·85					
12·3	—	1·27	1·27	·66					
·2	—	—	—	·02					
19·9	·25	6·96	4·05	2·17					
19·5	—	2·15	·13	1·92					
—	—	—	—	—					
52·9	1·27	1·27	1·01	3·63					
203·7	3·04	10·89	1·01	9·96					
67·9	—	—	—	4·43					
8·0	—	·13	—	·48					
9·5	·25	·63	·13	·58					
8·5	—	·51	.51	·60					
6·8	—	1·39	·63	·45					
23·5	—	·63	·13	1·07					
54·2	—	·76	·38	2·89					
49·8	·13	18·24	1·52	3·90					
2·8	·13	—	—	·08					
·1	·76	—	—	—					
65·6	1·27	1·01	·88	3·21					
—	—	—	6·46	—					
1·9	—	—	—	·04					
—	—	—	—	—					
1,139·0	34·82	84·71	22·29	76·07					

given in the Report for 1884; those for the years 1883 to 1884 in that for 1885, &c. &c.

ABSTRACT No. XXXIX.—Table showing the Average Strength, Admissions and returning from Foreign Service, and proceeding from one Colony

Orders.	Strength of W.O. N.C.O. and Men:	Passage Out.		Passage Home.		Intercolonial.	
	Embarked	16,879		19,453		8,330	
	Average Annual Strength	1,389		1,157		243	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I.—General Diseases.						
	Febrile Group.						
	Eruptive Fevers — Small Pox	—	—	1	—	—	—
	Eruptive Fevers — Other	3	—	2	—	27	—
	Continued „ — Enteric	6	1	2	—	—	—
	Continued „ — Other	21	—	58	1	14	—
	Yellow Fever	—	—	—	—	—	—
	Paroxysmal Fevers	7	—	194	2	11	—
	Cholera	—	—	5	3	—	—
	Other diseases	3	—	4	—	1	—
	Total	40	1	266	6	53	—
	Constitutional Group.						
	Rheumatism	31	1	28	—	17	—
	Primary Syphilis	323	—	183	—	35	—
	Secondary „	35	—	17	—	9	—
	Tubercular diseases	6	—	7	—	2	1
	Scurvy and Purpura	—	—	3	—	1	—
	Other Diseases	1	—	—	—	1	—
	Total	396	1	238	—	65	1
	II.—Local Diseases.						
	Diseases of the—						
1	Nervous System	14	1	11	1	3	—
2	Eye	19	—	21	—	3	—
3	Ear	10	—	3	—	2	—
4	Nose	—	—	—	—	—	—
5	Circulatory System	3	—	3	—	3	—
6	Absorbent „	8	—	21	—	1	—
7	Ductless Glands	—	—	1	—	1	—
8	Respiratory System	71	1	110	1	14	—
9	Digestive „	150	1	145	2	32	—
10	Urinary System — Gonorrhœa	229	—	134	—	40	—
	Urinary System — Sequelæ of Gonorrhœa	20	—	18	—	4	—
	Urinary System — Other diseases	25	—	10	—	2	—
11	Generative System	9	—	10	—	4	—
12	Organs of Locomotion	2	—	6	—	—	—
13	Cellular Tissue	15	—	37	—	4	—
14	Cutaneous System	200	—	70	—	19	—
	III.—Debility	14	—	27	—	9	—
	IV.—Poisons	1	—	5	4	3	—
	V.—Injuries.						
1	General	2	2	1	1	—	—
2	Local	88	—	72	—	21	—
3	In action	—	—	—	—	—	—
	Not yet diagnosed	1	—	1	—	1	—
	No appreciable disease	—	—	1	—	—	—
	Cause unknown (refers to deaths only).	—	—	—	—	—	—
	General Total	1,317	7	1,211	15	284	1
	Average of 10 years 1873–82	—	—	—	—	—	—

into **Hospital**, and **Deaths** among the **Troops** on **Board Ship**, proceeding on or Station abroad to another, with the ratio per 1,000 of the Strength.

Ratio per 1,000 of the Strength.					
Passage out.		Passage Home.		Intercolonial.	
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
—	—	·9	—	—	—
2·2	—	1·7	—	111·1	—
4·3	·72	1·7	—	—	—
15·1	—	50·1	·86	57·6	—
—	—	—	—	—	—
5·0	—	167·7	1·73	45·8	—
—	—	4·3	2·59	—	—
2·2	—	3·5	—	4·1	—
28·8	·72	229·9	5·18	218·1	—
22·3	·72	24·2	—	70·0	—
232·6	—	158·2	—	144·1	—
25·2	—	14·7	—	37·0	—
4·3	—	6·0	—	8·2	4·11
—	—	2·6	—	4·1	—
·7	—	—	—	4·1	—
285·1	·72	205·7	—	267·5	4·11
10·1	·72	9·5	·86	12·3	—
13·7	—	18·2	—	12·3	—
7·2	—	2·6	—	8·3	—
—	—	—	—	—	—
2·2	—	2·6	—	12·3	—
5·7	—	18·2	—	4·1	—
—	—	·9	—	4·1	—
51·1	·72	95·1	·86	57·6	—
108·0	·72	125·3	1·73	131·7	—
164·9	—	115·8	—	164·6	—
14·4	—	15·5	—	16·5	—
18·0	—	8·6	—	8·3	—
6·5	—	8·6	—	16·5	—
1·4	—	5·2	—	—	—
10·8	—	32·0	—	16·5	—
144·0	—	60·5	—	78·2	—
10·1	—	23·3	—		—
·7	—	4·3	3·46	37·0	—
				12·3	
1·4	1·44	·9	·86	—	—
63·4	—	62·2	—	86·4	—
—	—	—	—	—	—
·7	—	·9	—	4·1	—
—	—	·9	—	—	—
—	—	—	—	—	—
948·2	5·04	1,046·7	12·96	1,168·7	4·11
634·7	4·36	611·0	12·46	7,608·6	5·13

ABSTRACT No. XL.—ON THE INFLUENCE OF AGE ON THE MORTALITY.—Table showing the Death Rates of the Warrant Officers, Non-commissioned Officers and Men at the several Ages, arranged by quinquennial Periods, in the several Foreign Commands.

Commands.	Under 20 Years.				20 and under 25.				25 and under 30.				30 and under 35.				35 and under 40.				40 and upwards.			
	Strength.	Died.	Ratio per 1,000.		Strength.	Died.	Ratio per 1,000.		Strength.	Died.	Ratio per 1,000.		Strength.	Died.	Ratio per 1,000.		Strength.	Died.	Ratio per 1,000.		Strength.	Died.	Ratio per 1,000.	
			1883.	1873-82.			1883.	1873-82.			1883.	1873-82.			1883.	1873-82.			1883.	1873-82.			1883.	1873-82.
Gibraltar	425	2	4·70	3·25	2,371	13	5·48	4·71	1,125	5	4·44	5·16	449	2	4·45	7·09	259	1	3·86	8·40	37	2	54·05	19·96
Malta	424	1	2·36	6·66	2,303	24	10·42	9·07	974	7	7·19	7·21	338	5	14·79	8·42	165	2	12·12	12·08	54	—	—	11·77
Cyprus	30	—	—	8·62*	325	1	3·08	8·07*	65	—	—	13·89*	52	—	—	7·52*	19	1	52·63	10·53*	4	—	—	—
Egypt	680	7	10·29	—	4,813	130	27·01	—	3,667	75	20·45	—	1,193	23	19·28	—	512	14	27·34	—	112	8	71·43	—
Canada	102	—	—	1·10	842	2	2·37	4·04	704	1	1·42	4·42	222	2	9·01	9·63	105	2	19·05	12·36	20	—	—	19·57
Bermuda	98	—	—	2·50	788	2	2·54	4·66	334	4	11·97	8·44	159	1	6·29	10·55	71	—	—	10·37	29	—	—	28·78
West Indies	59	—	—	14·01	372	7	18·82	22·37	225	2	9·09	15·39	75	1	13·33	20·99	31	1	32·26	6·88	8	—	—	29·76
Cape of Good Hope and St. Helena.	96	—	—	13·36†	1,249	3	2·40	36·39†	965	5	5·18	32·65†	311	3	9·64	40·60†	161	—	—	57·34†	34	—	—	59·65†
Mauritius	28	—	—	8·69	117	4	34·19	14·67	218	1	4·59	23·01	39	1	25·64	17·41	23	—	—	20·13	7	—	—	54·05
Ceylon	14	—	—	3·27	420	4	9·52	10·31	368	3	8·15	11·60	76	1	13·16	11·96	25	1	40·00	21·31	8	—	—	50·28
China and Straits Settlements.	22	—	—	5·21	781	6	7·68	5·79	554	2	3·61	9·86	199	2	10·05	11·67	76	—	—	20·32	17	1	58·82	30·49
India	1,557	9	5·78	6·68	20,039	238	11·88	14·90	29,331	200	6·82	16·04	9,222	106	11·49	20·07	3,946	39	9·88	23·36	884	14	15·84	45·48

* For four years only.
† For five years only, viz., 1873-74-75-76 and 82, no information having been furnished for the intervening years.

ABSTRACT No. XLI.—TABLE taken from the REPORTS of the PRINCIPAL MEDICAL OFFICERS, showing the various CORPS which served in the different HOME DISTRICTS during the year 1883, and some of the most important of their HEALTH STATISTICS.

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	NORTHERN.											days.	days.
	2nd Dragoon Guards	13	200	172	2	6	11·65	860·1	10·00	30·00	58·25	21·26	24·72
	3rd Dragoon Guards	15	166	217	—	7	13·92	1307·2	—	42·17	83·86	30·61	23·41
	5th Dragoon Guards	27	556	597	2	13	41·44	1073·7	3·60	23·38	74·53	27·20	25·34
	7th Dragoon Guards	$\frac{9}{12}$	34	23	—	6	3·00	676·5	—	176·48	88·23	32·20	47·61
	11th Hussars	5	455	571	1	7	34·69	1254·9	2·20	15·38	76·24	27·83	22·17
N/A	Royal Artillery	$1\frac{2}{12}$	149	134	—	2	8·76	899·3	—	13·42	58·80	21·46	23·86
J/1	Royal Artillery	4	57	50	2	1	3·10	877·2	35·09	17·55	54·39	19·85	22·63
G/2	Royal Artillery	$3\frac{10}{12}$	136	129	—	3	7·87	948·5	—	22·06	57·87	21·12	22·27
K/2	Royal Artillery	$8\frac{8}{12}$	149	119	—	3	8·94	798·7	—	20·13	60·00	21·90	27·42
A/3	Royal Artillery	$2\frac{10}{12}$	165	89	—	2	5·03	539·4	—	12·12	30·48	11·13	20·63
B/3	Royal Artillery	$2\frac{10}{12}$	151	88	1	5	4·53	582·8	6·62	33·11	30·00	10·95	18·79
G/3	Royal Artillery	5	83	90	—	5	4·67	1084·3	—	60·24	56·32	20·54	18·94
Dpt/3	Royal Artillery	Since formation.	12	2	1	1	·41	166·6	83·33	83·33	3·42	12·47	74·82
Dpt.	Royal Artillery, Northern Division	„	77	83	—	—	3·09	107·8	—	—	40·13	14·65	13·59
Dpt.	Royal Artillery, Lancashire Division	„	133	94	—	4	5·26	706·7	—	30·08	39·55	14·43	20·42

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	NORTHERN—*cont.*											days.	days.
Dpt.	Royal Artillery, Coast Brigade - -	Various	32	10	1	1	·26	312·5	31·25	31·25	·81	2·79	9·49
1st	Royal Lancaster Regiment - - -	2	389	362	1	3	16·09	930·6	2·57	7·71	41·36	15·10	16·22
1st	West Yorkshire Regiment - - -	6	195	242	6	14	13·75	1241·0	30·77	71·79	70·51	25·74	20·74
1st	East Yorkshire Regiment - - -	13	341	314	2	7	16·16	920·8	[5·86	20·53	47·39	17·30	18·78
1st	South Wales Borderers - - -	4	409	669	1	31	37·36	1635·7	2·44	75·79	91·34	33·34	20·38
2nd	South Staffordshire Regiment - -	2¼	56	38	—	—	2·49	678·5	—	—	44·46	16·23	23·92
2nd	Welsh Regiment - - - -	$4\frac{2}{13}$	62	45	2	6	7·72	725·8	32·26	96·77	124·51	45·45	62·62
2nd	South Yorkshire Regiment - - -	9	156	200	—	2	8·16	1282·0	—	12·82	52·31	19·09	14·89
2nd	North Staffordshire Regiment - -	11	114	149	1	—	10·93	1307·0	8·77	—	95·87	34·99	26·77
	Depôt, Royal Lancaster Regiment - -	Since formation.	100	46	1	5	3·83	460·0	10·00	50·00	38·30	13·98	30·39
	„ Northumberland Fusiliers - -	„	118	100	1	1	6·22	847·4	8·47	8·47	52·71	19·24	22·70
	„ Royal Warwickshire Regiment -	„	112	71	—	3	2·07	633·9	—	26·79	18·48	18·48	10·64
	„ Liverpool Regiment - - -	„	100	63	1	4	3·24	630·0	10·00	40·00	32·40	11·82	18·77
	„ West Yorkshire Regiment - -	„	141	168	2	5	7·49	1191·5	14·18	35·46	53·12	19·39	16·27
	„ East Yorkshire Regiment - -	„	167	131	2	1	6·22	784·4	11·98	5·99	37·25	13·59	17·33
	„ Leicestershire Regiment - -	„	154	98	2	3	4·47	636·3	12·99	19·48	29·03	10·59	16·65
	„ Yorkshire Regiment - -	„	132	62	1	1	3·31	469·7	7·57	7·57	25·08	9·15	19·48

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	NORTHERN—*cont.*											days.	days.
	Depôt, Lancashire Fusiliers - -	Since formation.	166	125	2	2	4·16	753·0	12·05	12·05	25·06	9·15	12·15
	„ Cheshire Regiment - - -	„	212	167	1	2	6·58	787·7	4·72	9·43	31·04	11·33	14·38
	„ Royal Welsh Fusiliers - -	„	178	137	3	2	6·66	769·6	16·85	11·24	37·44	13·66	17·75
	„ King's Own Borderers - -	„	150	67	—	5	4·44	446·6	—	33·33	29·60	10·80	24·19
	„ East Lancashire Regiment - -	„	138	104	2	4	3·41	753·6	14·49	28·98	24·71	9·02	11·97
	„ West Riding Regiment - -	„	164	169	1	4	6·18	1030·5	6·10	24·39	37·68	13·75	13·35
	„ Border Regiment - - -	„	112	103	1	4	4·82	919·6	8·93	35·71	43·04	15·71	17·08
	„ South Staffordshire Regiment -	„	143	128	—	2	6·60	895·1	—	13·98	51·56	16·85	18·81
	„ South Lancashire Regiment -	„	131	72	1	1	3·15	449·6	7·63	7·63	24·05	8·77	15·97
	„ Derbyshire Regiment - -	„	164	188	1	1	10·26	1146·3	6·10	6·10	62·56	22·83	19·92
	„ Loyal North Lancashire Regiment	„	254	221	3	5	14·32	870·0	11·81	19·68	56·38	20·58	23·65
	„ Northamptonshire Regiment -	„	131	152	2	3	5·00	1160·3	15·27	22·90	38·17	13·93	12·01
	„ South Yorkshire Regiment -	„	141	117	1	—	4·20	829·8	7·09	—	29·79	10·97	13·10
	„ Shropshire Light Infantry - -	„	155	137	1	8	5·06	883·8	6·45	51·61	32·64	11·92	13·48
	„ Manchester Regiment - -	„	136	170	—	21	11·33	1250·0	—	154·41	83·31	30·41	24·32
	„ North Staffordshire Regiment -	„	220	168	2	1	6·48	763·6	9·09	4·54	29·45	10·75	14·08
	„ York and Lancaster Regiment -	„	139	94	3	—	4·91	676·2	21·58	—	35·32	12·89	19·06

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	NORTHERN—*cont.*											days.	days.
	Depôt, Durham Light Infantry	Since formation.	213	212	4	5	9·84	995·3	18·78	23·47	46·19	16·86	16·94
	Garrison Staff and Departments	Various	238	102	2	10	5·74	428·5	8·40	42·02	24·12	8·80	20·54
	EASTERN.												
	4th Hussars	5	48	41	—	—	1·21	854·2	—	—	25·21	9·20	10·77
	7th Hussars	3	404	326	1	5	21·19	806·9	2·47	12·37	52·20	19·14	23·72
	19th Hussars	1	9	8	—	—	·60	888·9	—	—	66·67	24·33	27·37
	Royal Artillery	Various	1,166	683	7	19	39·98	585·7	6·00	16·29	34·28	12·51	21·36
1st	Royal Fusiliers	13	578	537	2	5	29·22	929·1	3·46	8·65	50·55	18·45	19·86
1st	Norfolk Regiment	14	456	507	1	5	30·97	1111·8	2·20	10·96	67·91	24·79	22·29
1st	Manchester Regiment	1	316	375	5	14	17·90	1186·7	15·82	44·30	56·65	20·67	17·42
	Depôt, Norfolk Regiment	Since formation.	167	268	—	4	8·27	1604·8	—	23·95	49·52	18·07	11·26
	„ Lincolnshire Regiment	„	117	88	2	2	3·47	752·1	17·09	17·09	29·65	10·82	14·39
	„ Suffolk Regiment	„	149	339	1	7	12·96	2275·1	6·71	46·97	86·98	31·74	13·95
	„ Bedfordshire Regiment	„	150	207	2	3	6·55	1380·0	13·34	20·00	43·67	15·93	11·54
	„ Essex Regiment	„	206	357	1	7	12·55	1733·0	4·85	33·98	60·92	22·23	12·83
	Provisional Battalion	„	272	59	2	1	8·21	217·6	7·35	3·67	30·18	11·01	50·79

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	EASTERN—*cont.*											days.	days.
	Other Corps	Various	51	82	—	1	3·64	1607·8	—	19·60	71·37	26·05	16·20
	Garrison Staff and Departments	„	103	33	1	—	3·43	320·3	9·71	—	33·30	12·15	37·94
	WESTERN.												
A.	Royal Horse Artillery	7	261	134	1	6	8·80	513·4	3·83	22·99	33·72	12·31	23·97
2nd	Royal Artillery	9	136	198	1	8	15·06	1455·9	7·35	58·82	110·74	40·42	27·76
3rd	Royal Artillery	1	156	120	—	1	4·59	769·2	—	6·41	29·42	10·74	13·96
4th	Royal Artillery	5	56	67	—	—	3·92	1196.4	—	—	70·00	25·55	21·36
1st	Royal Artillery, Western Division	5	233	177	1	4	10·10	759·7	4·29	17·17	43·35	15·82	20·83
1st	Royal Artillery, Welsh Division	2	304	207	—	7	10·62	680·9	—	23·03	34·93	12·75	18·73
1st	Royal Artillery, South Irish Division	4	179	144	2	7	9·12	804·5	11·17	39·11	50·95	18·60	23·12
	Royal Artillery, Coast Brigade	—	103	28	1	2	1·54	271·8	9·71	19·42	14·95	5·46	20·07
	Royal Engineers	—	140	36	—	1	2·21	257·1	—	7·14	15·79	5·76	22·41
2nd	Royal Welsh Fusiliers	4	414	338	3	5	15·59	816·4	7·25	12·08	37·66	13·14	16·84
1st	Duke of Cornwall's Light Infantry	6	538	562	4	23	37·54	1044·6	7·43	42·75	69·78	25·47	24·38
2nd.	Highland Light Infantry	1	649	720	5	9	42·55	1199·4	7·70	13·87	65·56	23·93	21·57
2nd	South Lancashire Regiment	13	709	546	—	15	31·70	770·1	—	21·16	44·71	16·32	21·19

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	WESTERN—*cont.*											days.	days.
1st	Royal Munster Fusiliers	4	83	75	—	1	2·92	903·6	—	12·05	35·18	12·84	14·21
	Depôt, Devonshire Regiment	Since formation.	133	134	—	1	6·23	1007·5	—	7·52	46·84	17·10	16·97
	„ Somersetshire Light Infantry	„	130	59	—	7	3·62	453·8	—	53·85	27·85	10·16	22·39
	„ South Wales Borderers	„	159	222	3	3	4·34	1396·2	18·87	18·87	27·30	9·96	7·14
	„ Gloucestershire Regiment	„	143	133	1	4	7·48	930·1	6·99	27·97	52·31	19·09	20·53
	„ Worcestershire Regiment	„	121	218	1	3	8·86	1801·7	8·26	24·79	73·22	26·73	14·83
	„ Duke of Cornwall's Light Infantry	„	135	112	2	2	6·21	829·6	14·81	14·81	46·00	16·79	20·24
	„ Welsh Regiment	„	137	109	—	—	4·86	795·6	—	—	35·47	12·95	16·27
	Commissariat and Transport Corps	1	58	61	—	—	3·06	1051·7	—	—	52·76	19·26	18·31
	Garrison Staff and Departments	Various	86	5	—	—	·29	58·1	—	—	3·37	1·23	21·17
	Other Corps	„	132	54	1	—	8·05	409·1	7·58	—	60·98	22·26	54·41
	SOUTHERN.												
	4th Dragoon Guards	1	42	35	—	—	1·17	833·3	—	—	2·79	10·17	12·20
	Royal Artillery	Various	1,877	1,422	12	48	83·02	757·6	6·39	25·57	44·23	16·14	21·31
	Royal Engineers	„	216	91	3	2	4·75	421·3	13·89	9·26	21·99	8·03	19·05

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	SOUTHERN—*cont.*											days.	days.
1st	Royal West Surrey Regiment	4	270	223	2	3	6·11	825·9	7·41	11·11	22·63	8·26	10·00
1st	Leicestershire Regiment	1	374	331	1	12	18·04	885·0	2·67	32·09	48·24	17·61	19·89
1st	Cheshire Regiment	Various	149	173	—	1	6·09	1161·1	—	6·71	40·87	14·92	12·85
1st	Gloucestershire Regiment	4	436	452	1	18	29·28	1036·7	2·29	41·28	67·16	24·51	23·65
1st	Hampshire Regiment	1	75	44	—	—	1·49	586·5	—	—	19·87	7·25	12·36
2nd	Royal Highlanders	2	455	353	1	19	24·17	775·8	2·20	41·76	53·12	19·39	24·99
2nd	Loyal North Lancashire Regiment	—	22	38	1	—	1·00	1727·3	45·45	—	45·45	16·59	9·61
2nd	Berkshire Regiment	2	433	268	2	20	22·52	619·0	4·62	46·19	52·19	18·98	30·67
2nd	Shropshire Light Infantry	2	52	62	4	—	3·08	1192·3	76·92	—	59·23	21·62	18·13
2nd	King's Royal Rifle Corps	2	295	193	1	5	9·38	654·2	3·39	16·95	31·79	11·61	17·74
1st	Seaforth Highlanders	1	518	438	—	13	26·30	845·6	—	25·10	50·77	18·53	21·92
	Depôt, Hampshire Regiment	Since formation.	226	268	2	9	9·23	1185·8	8·85	39·82	40·84	14·91	12·57
	„ Dorsetshire Regiment	„	142	143	1	10	6·36	1007·0	7·04	70·42	44·79	16·35	16·23
	„ Wiltshire Regiment	„	135	114	—	—	4·16	844·4	—	—	30·81	11·25	13·32
	„ Rifles	„	608	705	2	10	23·65	1159·5	3·29	16·45	38·90	14·19	12·24
	Garrison Staff and Departments	Various	431	240	6	12	21·45	556·8	13·92	27·84	49·77	18·17	32·62
	Other Corps	„	546	513	15	17	45·20	936·6	27·47	31·14	82·79	30·22	32·16

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	CHATHAM.											days.	days.
V/1	Royal Artillery - - - - -	5	159	149	1	11	9·53	937·1	6·28	69·18	59·93	21·88	23·35
1/2	Scottish Division Royal Artillery - -	$6\frac{4}{12}$	67	81	2	—	3·90	1208·9	29·85	—	58·20	21·25	17·57
1/3	Scottish Division Royal Artillery - -	$6\frac{4}{12}$	60	55	1	—	2·61	916·7	16·66	—	43·50	15·88	17·32
1/4	Scottish Division Royal Artillery - -	$1\frac{10}{12}$	69	117	1	—	5·80	1695·6	14·49	—	84·05	30·68	18·09
1/8	Scottish Division Royal Artillery - -	$\frac{1}{12}$	24	6	—	—	·11	250·0	—	—	4·58	1·67	6·69
1/3	North Irish Division Royal Artillery -	$1\frac{2}{12}$	69	20	—	—	·94	289·8	—	—	13·62	4·87	17·16
	Royal Engineers - - - -	Various	1,288	862	9	12	46·48	669·2	6·98	9·31	36·09	13·17	19·68
1st	Royal Warwickshire Regiment - -	3	414	447	2	21	23·27	1079·7	4·83	50·72	56·20	20·52	19·00
2nd	East Lancashire Regiment - - -	3	287	307	2	12	16·93	1069·7	6·96	41·81	58·99	21·53	20·13
2nd	Berkshire Regiment - - -	2	32	70	—	—	2·36	2187·5	—	—	73·75	26·92	12·31
	Garrison Staff and Departments - -	Various	150	82	1	1	8·18	546·7	6·66	6·66	54·53	19·90	36·41
	Other Corps - - - - - -	„	383	188	6	11	9·18	490·9	15·66	28·72	23·96	8·74	17·82
	SOUTH-EASTERN.												
4th	Dragoon Guards - - - - -	1	489	290	3	6	18·32	593·0	6·13	12·26	37·46	37·67	23·05
7th	„ „ - - - - -	Under one year.	467	346	1	12	21·87	740·9	2·14	25·69	46·83	17·09	23·07
	Cavalry Depôt - - - - -	12	1,181	1,329	4	23	70·20	1125·2	3·38	19·47	59·44	21·69	19·27

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	SOUTH-EASTERN—*cont.*												
												days.	days.
1/A	Royal Horse Artillery	1	121	94	1	1	4·72	776·8	8·26	8·26	30·00	14·23	18·32
1/A.D. & T.	Royal Artillery	2	253	227	1	4	13·99	897·2	3·95	15·81	55·17	20·13	22·44
1st	Northern Division Royal Artillery	Various	93	112	—	2	5·39	1204·3	—	21·50	57·95	21·15	17·56
1st	Eastern Division Royal Artillery	"	59	58	1	1	2·92	98·3	16·94	16·94	49·49	18·06	18·37
1st	Cinque Ports Division Royal Artillery	"	433	263	3	17	16·06	607·4	6·92	39·26	37·09	13·53	22·28
1st	Scottish Division Royal Artillery	"	25	20	—	—	·79	800·0	—	—	31·60	11·53	14·41
	Coast Brigade Royal Artillery	—	57	5	1	1	·33	87·7	17·54	17·54	5·78	2·11	24·00
	Royal Engineers	—	156	81	1	1	2·69	519·2	6·41	6·41	17·24	6·29	12·12
1st	Bedfordshire Regiment	13	431	316	2	7	17·22	733·2	4·64	16·24	39·95	14·58	19·89
2nd	Royal Irish Regiment	2	23	37	—	6	4·85	1608·7	—	260·86	210·86	76·96	47·84
1st	Royal Scots Fusiliers	2	412	314		22	20·10	762·1	7·28	53·39	48·78	17·80	23·36
2nd	East Lancashire Regiment	3	43	42	—	—	1·43	976·7	—	—	33·25	12·13	12·42
1st	East Surrey Regiment	2	58	61	—	2	3·28	1051·7	—	34·48	56·55	20·64	19·62
1st	Royal Irish Rifles	1	333	182	1	17	14·67	546·5	3·00	51·05	44·05	16·07	29·42
2nd	Royal Dublin Fusiliers	12	737	752	8	33	55·41	1020·3	10·85	44·77	75·18	27·44	26·89
Depôt	East Kent Regiment	Since formation.	175	262	5	9	15·71	1497·1	28·57	51·42	89·77	32·76	21·88

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	SOUTH-EASTERN—*cont.*											days.	days.
	Depôt, Royal Sussex Regiment	Since formation.	309	358	1	6	14·29	1158·6	3·23	19·41	46·24	16·87	14·56
	„ Royal West Kent Regiment	„	203	207	5	17	11·92	1019·7	24·63	83·74	58·71	21·43	21·01
	Other Corps	Various	131	45	1	1	2·68	343·5	7·63	7·63	20·45	7·46	21·73
	Commissariat and Transport Corps	„	113	56	1	—	4·65	495·5	8·84	—	41·15	15·01	30·30
	Garrison Staff and Departments	„	106	13	1	2	1·67	122·6	9·43	18·86	15·75	5·75	46·88
	HOME.												
1st	Life Guards	67	396	274	1	17	13·36	691·9	2·52	42·92	33·73	12·31	17·79
2nd	Life Guards	67	397	224	1	5	11·14	564·2	2·51	12·59	28·06	10·24	18·15
	Royal Horse Guards	67	407	222	1	7	16·52	545·4	2·45	17·19	40·53	14·81	27·16
3rd	Hussars	4	37	40	—	—	·42	1081·1	—	—	11·35	4·14	3·83
4th	Hussars	5	403	343	—	6	22·08	851·1	—	14·88	54·78	19·99	23·49
C A	Royal Horse Artillery	6	72	48	—	2	2·25	666·7	—	27·77	31·25	11·40	17·11
M/A	Royal Horse Artillery	5	35	38	—	5	2·13	1085·7	—	142·85	60·85	22·21	20·45
	Royal Artillery	Various	39	29	—	—	1·36	743·6	—	—	34·87	12·73	12·73
	Royal Engineers	„	52	15	4	—	1·39	288·5	76·92	—	26·73	9·75	33·82
1st	Grenadier Guards	9	614	687	5	16	35·44	1118·9	8·14	26·06	57·72	21·06	18·83

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	In-valided.	Average Con-stantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sick-ness.
								Ad-mitted.	Died.	In-valided.	Average Con-stantly Sick.		
	HOME—*cont.*											days.	days.
2nd	Grenadier Guards	1	616	649	5	4	36·10	1053·6	8·11	6·49	58·61	21·39	20·30
3rd	Grenadier Guards	27	303	475	2	4	14·86	1567·6	6·60	13·20	49·04	17·90	11·42
1st	Coldstream Guards	„	695	543	7	11	40·23	781·3	10·07	15·82	57·88	21·12	27·04
2nd	Coldstream Guards	1	553	735	1	10	39·14	1329·1	1·80	18·08	70·77	25·83	19·43
1st	Scots Guards	„	601	564	—	7	25·32	938·4	—	11·64	42·13	15·37	16·38
2nd	Scots Guards	9	493	421	4	8	25·31	853·9	8·11	16·22	51·34	18·74	21·94
	Foot Guards transferred from London	Various	—	—	—	—	19·88	—	—	—	—	—	—
	King's Royal Rifle Corps	„	124	148	1	3	7·83	1193·5	8·06	24·19	63·14	22·96	19·24
1st	Manchester Regiment	1	257	261	2	5	21·26	1015·6	7·78	19·45	82·72	30·19	29·72
	Depôt, Royal West Surrey Regiment	Since formation.	144	79	1	8	5·23	548·6	6·94	55·55	36·32	13·25	24·16
	„ East Surrey Regiment	„	143	71	4	3	3·47	496·5	27·97	20·97	24·26	8·85	17·84
	„ Oxfordshire Light Infantry	„	155	186	1	10	5·62	1200·0	6·45	64·51	36·25	13·23	11·03
	„ Berkshire Regiment	„	165	128	2	4	4·92	775·7	12·12	24·24	29·81	10·88	14·03
	„ Royal Fusiliers „ Middlesex Regiment	„	224	118	2	3	6·72	526·8	8·92	13·39	30·00	10·95	20·78
	Commissariat and Transport Corps	Various	102	130	—	1	5·16	1274·5	—	9·80	50·59	18·46	14·48

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness,
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	HOME—*cont.*											days.	days.
	Garrison Staff and Departments - -	Various	246	112	1	1	5·38	455·2	4·06	4·06	21·87	7·98	17·53
	Other Corps - - - - - -	„	42	8	2	1	1·46	190·5	23·81	47·61	34·76	12·69	66·61
	WOOLWICH.												
	Royal Horse Artillery - - -	„	809	522	2	15	35·48	645·2	2·47	18·54	43·85	16·00	24·80
	Field Artillery - - - - -	„	972	649	3	24	46·34	667·7	3·08	24·69	47·67	17·39	26·06
	Garrison Artillery - - - -	„	960	551	12	20	41·15	573·9	12·50	20·83	42·86	15·49	27·25
	Royal Engineers - - - - -	„	52	17	—	—	1·16	326·9	—	—	22·30	8·13	24·90
	Depôt, Royal Fusiliers - - -	„	26	22	—	—	·67	846·1	—	—	25·76	9·40	11·11
1st	Wiltshire Regiment - - - - -	2^{9}_{1}	454	321	3	5	20·40	707·0	6·60	11·01	44·93	16·39	23·19
	Commissariat and Transport Corps -	Various	464	394	2	—	26·38	849·1	4·31	—	56·85	20·75	24·43
	Ordnance Store Corps - - -	„	170	140	1	7	10·22	823·5	5·88	41·17	60·11	21·94	26·64
	Army Hospital Corps - - -	„	79	39	1	—	2·06	493·7	12·65	—	26·07	9·51	19·27
	Other Corps - - - - - -	„	413	34	3	14	4·24	82·3	7·26	33·89	10·26	3·74	45·51
	ALDERSHOT.												
1st	Life Guards - - - - - -	—	25	1	1	—	—	40·0	40·00	—	—	—	—
2nd	Dragoon Guards } - - - - -	13	199	165	—	6	8·24	829·1	—	30·15	41·41	15·11	18·23

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	In-valided.	Average Con-stantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sick-ness.
								Ad-mitted.	Died.	In-valided.	Average Con-stantly Sick.		
	ALDERSHOT—*cont.*											days.	days.
	3rd Hussars	2	389	334	—	12	17·33	858·6	—	30·85	44·55	16·26	18·94
	7th Hussars	2	42	41	—	—	1·66	976·2	—	—	39·52	12·05	12·34
	15th Hussars	3	424	433	—	21	21·84	997·6	—	49·53	51·51	18·80	18·84
	19th Hussars	13	124	130	—	10	6·50	1048·4	—	80·64	52·42	19·13	18·25
	Royal Horse Artillery	—	405	239	3	9	17·65	590·1	7·41	22·22	43·58	15·91	26·95
1st	Royal Artillery	—	203	200	2	5	11·79	985·2	9·85	24·63	58·08	21·20	21·52
2nd	Royal Artillery	—	142	125		4	7·73	880·3	14·08	28·17	54·44	19·87	22·57
3rd	Royal Artillery	—	196	202	—	2	12·31	1030·6	—	10·20	62·81	22·87	22·19
4th	Royal Artillery	—	213	206	—	3	14·39	967·1	—	14·08	67·56	24·66	22·50
	Royal Engineers	—	552	397	3	9	26·65	719·2	5·43	16·31	48·28	17·62	24·75
	Detachment Brigade of Guards	—	213	119	—	—	6·27	558·6	—	—	29·43	10·74	19·23
2nd	Royal Irish Regiment	1	509	569	1	8	27·86	1117·9	1·96	15·71	54·73	19·98	17·87
1st	Royal Scots Fusiliers	2	60	85	—	—	2·84	1416·6	—	—	47·33	17·28	12·19
1st	Scottish Rifles	2	414	298	2	10	19·79	719·8	4·83	24·15	47·80	17·47	24·27
1st	East Surrey Regiment	$\frac{8}{12}$	515	524	1	4	28·69	1017·4	1·94	7·77	55·71	20·33	19·98
1st	Dorsetshire Regiment	2	529	375	1	22	28·80	708·9	1·89	41·59	54·44	19·85	28·03

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	ALDERSHOT—*cont.*												
2nd	Royal Highlanders	3	26	29	—	—	·76	1115·4	—	—	29·23	days. 10·67	days. 9·56
2nd	York and Lancaster Regiment	2	666	832	4	12	40·16	1249·2	6·01	18·02	73·81	26·94	21·57
2nd	Shropshire Light Infantry	2	382	263	2	11	19·92	688·5	5·24	28·79	52·15	19·03	27·65
1st	Royal Irish Fusiliers	6	807	825	8	16	46·58	1022·3	9·91	19·83	57·72	21·06	20·60
2nd	Royal Dublin Fusiliers	10	89	78	3	8	8·92	876·4	33·71	89·88	100·22	36·57	41·74
3rd	Rifle Brigade	11	510	403	1	3	19·57	790·7	1·94	5·81	37·93	13·84	17·51
	Commissariat and Transport Corps	Various	732	625	4	8	41·03	853·8	5·46	10·94	56·05	20·49	23·96
	Army Hospital Corps	„	457	424	—	11	21·30	927·8	—	24·07	46·61	18·21	18·34
	Divisional Staff and Police	„	162	46	—	3	1·82	283·9	—	18·52	11·23	4·10	14·44
	Other Corps	„	—	404	8	11	31·94	—	—	—	—	—	—
	Detachment Sandhurst	„	119	—	—	—	—	—	—	—	—	—	—
	NORTH BRITISH.												
	3rd Dragoon Guards	14	248	260	1	5	11·52	1048·4	4·03	20·16	46·45	16·95	16·17
	2nd Dragoons	31	79	99	1	—	3·25	1253·2	12·66	—	41·14	15·01	11·98
4/I & R	Royal Artillery	10	130	161	1	9	9·67	1238·5	7·69	69·23	74·38	27·15	21·92
	Depôt, Scottish Division Royal Artillery	Since formation.	100	52	1	3	2·15	520·0	10·00	30·00	21·50	7·85	15·09

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	NORTH BRITISH—*cont.*											days.	days.
	Coast Brigade Royal Artillery	Various	58	18	1	1	·84	310·3	17·24	17·24	14·48	5·29	17·03
2nd	Gordon Highlanders	1	460	338	2	23	20·26	734·8	4·35	50·00	44·04	16·07	21·88
2nd	Argyll and Sutherland Highlanders	3	459	406	1	6	18·16	884·5	2·18	13·07	39·56	14·44	16·33
	Depôt, Royal Scots	Since formation.	167	103	—	3	4·93	616·8	—	17·91	29·52	10·77	17·47
	„ Royal Scots Fusiliers	„	135	146	2	4	5·20	1081·5	14·81	29·63	38·53	14·06	13·00
	„ Cameronians	„	113	54	—	5	2·00	477·9	—	44·25	17·70	6·46	13·52
	„ Royal Highlanders	„	139	75	—	5	3·91	539·6	—	35·97	28·13	10·27	19·03
	„ Highland Light Infantry	„	184	117	1	9	3·64	635·9	5·43	48·91	19·78	7·22	11·35
	„ Seaforth Highlanders	„	104	55	1	3	2·21	528·8	9·61	28·85	21·25	7·76	14·67
	„ Gordon Highlanders	„	153	115	1	6	4·61	751·6	6·54	39·22	30·13	11·00	14·63
	„ Cameron Highlanders	„	133	83	3	9	3·66	624·1	22·56	67·67	27·52	10·04	16·09
	„ Argyll and Sutherland Highlanders	„	140	72	—	3	5·03	514·3	—	21·43	35·93	13·11	25·50
	Garrison Staff and Departments	Various	79	21	—	1	1·21	265·8	—	12·66	15·32	5·59	21·03
	CHANNEL ISLANDS.												
1/1	Northern Division Royal Artillery	6	33	16	—	—	·83	484·8	—	—	25·15	9·18	18·93
1/2	Northern Division Royal Artillery	6	29	20	—	1	2·21	689·6	—	34·48	76·21	27·81	40·66

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	CHANNEL ISLANDS—*cont.*												
1/3	Northern Division Royal Artillery	10	31	24	1	—	2·01	774·2	32·26	—	64·84	days. 23·67	days. 30·57
1/2	Lancashire Division Royal Artillery	9	54	68	—	1	3·22	1259·3	—	18·52	59·63	21·76	17·28
1/1	Cinque Ports Division Royal Artillery	7	74	54	—	—	2·13	729·7	—	—	28·78	10·51	14·40
1/2	Cinque Ports Division Royal Artillery	7	75	48	—	—	1·89	640·0	—	—	26·53	9·20	14·37
1/2	Southern Division Royal Artillery	—	1	—	—	—	·04	—	—	—	40·00	14·60	—
	Coast Brigade Royal Artillery	Various	36	8	—	—	·17	222·2	—	—	4·72	1·72	7·76
1st	Cheshire Regiment	14	317	334	—	1	20·99	1053·6	—	3·15	66·21	24·17	23·06
2nd	Worcestershire Regiment	8	127	189	—	—	7·85	1488·2	—	—	61·81	22·56	15·16
1st	Middlesex Regiment	4	498	422	1	4	18·50	847·4	2·01	8·03	37·15	13·56	16·00
	Garrison Staff and Departments	Various	18	—	—	—	—	—	—	—	—	—	—
	Other Corps	"	32	10	—	1	·84	312·5	—	31·25	26·25	9·58	30·66
	BELFAST.												
16th	Lancers	7	459	245	—	7	11·67	533·8	—	15·25	25·42	9·28	17·35
9th	North Irish Division Royal Artillery	2	80	48	1	4	2·90	600·0	12·50	50·00	36·25	13·23	22·05
	Coast Brigade Royal Artillery	—	46	5	—	—	·35	108·7	—	—	7·61	2·77	25·55
1st	Somersetshire Light Infantry	4	196	137	—	3	5·96	699·0	—	15·31	30·41	11·10	15·88

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	BELFAST—*cont.*											days.	days.
1st	East Yorkshire Regiment	13	83	83	2	2	5·42	1000·0	24·10	24·09	65·30	23·83	23·83
2nd	Yorkshire Regiment	7	268	228	2	8	14·71	850·7	7·46	29·85	54·89	20·03	23·55
2nd	Royal Inniskilling Fusiliers	7	543	375	6	12	18·26	690·6	11·05	22·10	33·63	12·27	17·77
2nd	Border Regiment	7	376	269	3	7	14·76	715·4	7·98	18·61	39·22	14·33	20·03
2nd	Welsh Regiment	5	317	341	1	3	18·86	1075·7	3·12	9·46	62·68	21·72	20·19
	Depôt, Royal Inniskilling Fusiliers	Since formation.	139	167	—	5	5·03	1201·4	—	35·97	36·19	1·21	10·99
	„ Royal Irish Rifles	„	134	67	3	7	4·07	500·0	22·39	52·24	30·37	11·08	22·17
	„ Royal Irish Fusiliers	„	157	37	—	6	1·29	235·7	—	38·22	8·22	3·00	12·73
	Garrison Staff and Departments	Various	51	36	2	1	7·23	705·9	39·21	19·61	141·76	51·74	73·30
	Other Corps	„	1	2	1	3	·31	2000·0	1000·00	3000·00	310·00	113·15	56·57
	DUBLIN.												
1st	Dragoons	30	407	340	2	16	22·86	835·4	4·91	3·93	56·17	20·50	24·54
5th	Lancers	9	105	96	—	1	4·70	914·3	—	9·51	90·57	33·06	36·16
18th	Hussars	7	315	232	1	4	10·41	736·5	3·17	12·70	32·73	11·95	16·22
21st	Hussars	10	353	446	2	11	33·09	1263·5	5·66	31·16	93·74	34·21	27·08
A.	Royal Horse Artillery	3 to 11	220	284	2	8	17·31	1290·9	9·09	36·36	78·68	28·63	22·25

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	DUBLIN—*cont.*											days.	days.
1st	North Irish Division Royal Artillery	3 to 11	326	378	4	18	21·34	1159·5	12·27	55·21	65·49	23·89	20·61
	Royal Engineers	8	40	15	—	1	1·16	375·0	—	25·00	29·00	10·58	28·23
3rd	Grenadier Guards	30	393	473	5	5	28·74	1203·6	12·72	12·72	73·13	26·69	22·18
2nd	Scots Guards	16	136	223	—	2	12·38	1639·7	—	14·70	90·29	33·22	20·26
1st	East Kent Regiment	5	573	915	1	25	57·57	1596·9	1·74	43·63	100·47	36·67	22·96
1st	Northumberland Fusiliers	3	434	289	2	8	11·60	665·9	4·60	18·43	26·73	9·75	14·65
1st	Devonshire Regiment	6	322	539	2	14	34·26	1673·9	6·21	43·48	106·40	38·83	23·20
2nd	Suffolk Regiment	6	461	220	—	9	11·54	477·2	—	19·52	25·03	9·14	19·14
1st	Somersetshire Light Infantry	2	274	278	1	15	24·09	1014·6	3·65	54·74	87·92	35·74	31·63
1st	West Yorkshire Regiment	4	94	130	—	—	4·30	1383·0	—	—	45·74	16·70	12·07
1st	Derbyshire Regiment	5	482	264	3	11	11·02	547·7	6·22	22·82	22·86	8·34	15·23
2nd	Royal West Kent Regiment	2	500	813	6	10	47·40	1626·0	12·00	20·00	94·80	34·60	21·28
1st	King's Royal Rifle Corps	7	403	514	3	13	33·54	1275·4	7·44	32·26	83·22	30·37	23·82
1st	North Staffordshire Regiment	11	307	124	2	3	7·15	403·9	6·51	9·77	23·29	8·50	21·05
1st	Highland Light Infantry	3	234	298	2	3	12·90	1273·5	8·55	12·82	55·13	20·12	15·80
2nd	Leinster Regiment	12	361	199	1	4	9·23	551·2	2·77	11·08	25·57	9·33	16·93

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	DUBLIN—*cont.*											days.	days.
	Depôt, Connaught Rangers	Since formation.	131	54	2	1	2·13	412·2	15·27	7·63	16·26	5·86	14·40
	„ Leinster Regiment	„	96	53	3	—	1·64	552·1	31·25	—	17·08	6·24	11·29
	„ Royal Dublin Fusiliers	„	209	274	1	9	10·81	1311·0	4·78	43·06	51·77	18·88	14·40
	Musketry Detachments	Various	224	41	—	—	2·02	183·0	—	—	9·02	3·47	18·96
	Commissariat and Transport Corps	„	222	224	1	6	10·81	1009·0	4·50	27·03	48·69	17·86	17·61
	Army Hospital Corps	„	83	41	1	1	1·52	494·0	12·05	12·05	18·31	6·68	13·53
	Other Corps	„	154	97	4	4	14·23	629·9	25·97	25·97	92·40	33·73	52·50
	CORK.												
	2nd Dragoons	27	359	157	3	4	7·35	437·3	8·36	11·14	20·47	7·47	17·08
	20th Hussars	11	547	395	1	15	15·25	722·1	1·83	27·42	27·88	10·16	14·09
	21st Hussars	—	76	51	—	—	2·20	671·1	—	—	28·95	10·57	15·75
	Royal Artillery	—	974	556	10	13	29·56	573·9	10·27	13·35	30·34	11·08	19·30
	Royal Engineers	—	55	13	—	—	·48	136·4	—	—	8·73	3·19	13·48
2nd	Royal Scots	3	61	56	—	6	2·91	918·0	—	98·36	47·70	17·41	18·97
1st	Royal West Surrey Regiment	5	101	72	1	—	1·26	712·9	9·90	—	12·48	4·55	6·39
1st	Liverpool Regiment	4	390	297	2	16	17·33	761·5	5·13	41·03	44·44	16·22	21·30

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	CORK—*cont.*												
1st	Lincolnshire Regiment . . .	7	306	169	4	1	6·70	552·3	13·07	3·27	21·90	days. 7·99	days. 14·47
1st	Lancashire Fusiliers	3	397	236	2	1	12·97	594·5	5·04	2·52	32·67	11·90	20·06
2nd	Royal Welsh Fusiliers . . .	—	41	38	—	—	1·26	926·8	—	--	30·73	11·22	12·10
1st	South Wales Borderers . . .	4	164	121	—	—	5·50	737·8	—	—	33·54	12·24	16·59
2nd	King's Own Borderers . . .	8	432	244	—	3	9·78	564·8	—	6·94	22·64	8·26	14·63
2nd	Worcestershire Regiment . . .	8	337	208	—	6	10·01	617·2	—	17·80	29·70	10·84	17·57
2nd	West Riding Regiment . . .	7	462	392	2	15	14·74	848·5	4·32	32·47	31·90	11·64	15·73
1st	Cornwall Light Infantry . . .	7	191	243	—	—	9·39	1272·2	—	—	49·16	17·94	14·10
1st	Hampshire Regiment . . .	9	682	406	4	6	21·74	595·3	5·87	8·80	31·88	11·64	19·54
2nd	South Staffordshire Regiment . .	3	231	161	2	1	9·68	696·9	8·66	4·33	41·90	15·30	21·94
2nd	Oxfordshire Light Infantry . . .	10	864	652	2	8	37·97	754·6	2·31	9·26	43·95	16·04	21·26
2nd	South Yorkshire Regiment . . .	12	304	244	—	5	10·18	802·6	—	16·45	33·49	12·22	15·22
2nd	Connaught Rangers	1	410	231	1	2	9·29	563·4	2·44	4·88	22·66	8·27	14·68
2nd	Rifle Brigade	3	80	67	—	2	3·91	838·5	—	25·00	48·88	17·84	21·30
	Depôt, Royal Irish Regiment . .	Since formation.	260	218	1	4	7·48	838·5	3·85	15·38	28·77	10·50	12·52
	„ Royal Munster Fusiliers . .	„	188	176	1	2	5·15	936·2	5·32	10·64	27·39	9·99	10·68

Brigade or Battalion.	Corps and Districts.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of Mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	CORK—*continued.*												
	Commissariat and Transport Corps	Various	73	80	1	2	3·19	1095·9	13·70	27·40	43·70	days. 15·95	days. 14·55
	Garrison Staff and Departments	„	327	79	4	7	12·08	241·6	12·23	21·41	36·94	13·48	55·81
	CURRAGH.												
1st	Dragoons	27	99	98	—	—	4·60	989·9	—	—	46·46	16·96	17·14
5th	Lancers	10	321	151	2	4	7·01	470·4	6·23	12·46	21·84	7·97	16·94
18th	Hussars	7	128	85	1	—	5·24	664·1	7·81	—	40·93	14·94	22·50
A/A	Royal Horse Artillery	8	72	36	—	2	1·57	500·0	—	28·06	21·81	7·96	15·92
K/A	Royal Horse Artillery	6	39	20	—	—	1·00	512·8	—	—	35·64	9·36	18·25
L/B	Royal Horse Artillery	4	107	56	—	1	2·73	523·4	—	9·34	25·51	9·31	17·79
I/4	Royal Artillery	1	46	68	—	2	3·92	1478·3	—	43·48	85·22	31·10	21·19
R/4	Royal Artillery	1	79	116	—	2	6·39	1468·3	—	25·31	80·88	29·52	20·10
2nd	Royal Scots	3	315	335	—	5	16·95	1063·5	—	15·87	53·81	19·64	18·46
2nd	Yorkshire Regiment	7	158	176	—	3	9·40	1113·9	—	18·98	59·49	21·71	19·49
1st	Northamptonshire Regiment	5	377	337	3	8	17·66	894·7	7·96	21·22	46·84	17·09	19·13
2nd	South Yorkshire Regiment	9	99	102	—	1	6·79	1030·3	—	10·10	68·58	25·03	24·29
1st	Highland Light Infantry	7	379	312	1	9	18·27	823·2	2·64	23·74	48·21	17·60	21·37

Brigade or Battalion.	Corps and District.	Completed Years of Service in United Kingdom since last return from Foreign Service.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Constantly Sick.	Ratio per 1,000 of mean Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
								Admitted.	Died.	Invalided.	Average Constantly Sick.		
	CURRAGH—*continued.*												
2nd	Connaught Rangers	2	64	40	—	3	3·73	625·0	—	46·87	58·28	21·27	34·03
2nd	Rifle Brigade	3	234	263	1	4	14·04	787·4	2·99	11·97	42·03	15·34	19·48
6th	Royal Engineers	8	12	5	—	—	·38	416·7	—	—	31·66	11·56	27·74
29th	Royal Engineers	3	72	24	—	2	·96	333·3	—	27·77	13·33	4·86	14·60
	Musketry Detachments	—	113	50	—	—	2·48	442·5	—	—	21·95	8·01	18·10
	Commissariat and Transport Corps	10	152	145	—	1	7·77	953·9	—	6·58	51·12	18·65	19·55
	Garrison Staff and Departments	Various	49	11	—	—	·90	224·3	—	—	18·37	6·70	29·86
	Other Corps	"	26	90	2	3	10·20	3461·5	76·92	115·38	392·31	143·18	41·37

ABSTRACT No. XLII.—Table, taken from the Reports of the Principal Medical Officers, showing the various Corps which served in the different Foreign Commands during the year 1883, and some of the most important of their Health Statistics.

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	GIBRALTAR.													days.	days.
	Royal Artillery - - -	—	895	618	3	—	3	27	43·93	690·5	3·35	30·17	49·08	17·92	25·95
	Royal Engineers - - -	—	317	286	—	—	—	9	14·95	902·2	—	28·39	47·61	17·21	19·08
1st	Eas Surrey Regiment - -	$\frac{11}{12}$	318	328	3	—	3	4	22·86	103 ·4	9·43	12·58	71·89	26·24	25·44
2nd	Essex Regiment - - -	$1\frac{6}{12}$	868	700	10	—	10	11	49·64	806·5	11·52	12·67	57·18	20·87	25.79
1st	Royal North Lancashire Regiment	$1\frac{6}{12}$	895	911	4	—	4	20	69·96	1017·9	4·47	22·35	78·17	28·53	28·03
1st	Berkshire Regiment - - -	$1\frac{2}{12}$	563	587	1	—	1	10	38·73	1042·6	1·78	17·76	68·79	25·11	24·08
2nd	Durham Light Infantry - -	$1\frac{4}{12}$	764	918	4	1	5	22	45·96	939·8	5·24	28·80	60·18	21·97	23·37
	Garrison Staff and Departments -	—	117	92	—	—	—	8	6·18	786·3	—	68·38	52·82	19·28	24·52
	Other Corps - - -	—	—	—	—	1	1	—	—	—	—	—	—	—	—
	MALTA.														
	Royal Artillery - - -	1-3	1,062	690	16	—	16	30	53·26	649·7	15·06	28·24	50·15	8·30	28·17
	Royal Engineers - - -	$3\frac{2}{12}$	76	31	—	—	—	—	1·68	407·8	—	—	22·10	8·06	19·68
1st	Royal Scots - - -	$6\frac{5}{12}$	72	44	—	—	—	4	3·57	611·1	—	55·55	49·58	18·09	29·61
2nd	Royal Irish Regiment - -	$\frac{3}{12}$	191	105	—	—	—	1	8·28	549·7	—	5·23	43·35	15·82	28·78

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness
					In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	Malta—*cont.*													days.	days.
2nd	Royal Sussex	$1\frac{4}{12}$	885	667	7	—	7	17	44·87	753·6	7·90	19·20	50·70	18·50	24·55
1st	South Staffordshire Regiment	$\frac{9}{12}$	562	504	4	—	4	12	31·25	896·7	7·11	21·35	55·60	20·29	22·63
1st	Shropshire Light Infantry	$\frac{10}{12}$	714	542	5	1	6	11	40·91	759·1	7·00	15·40	57·29	20·91	27·55
2nd	Durham Light Infantry	$\frac{9}{12}$	58	22	—	—	—	—	2·46	379·3	—	—	42·41	15·48	40·81
2nd	Royal Munster Fusiliers	$1\frac{6}{12}$	857	850	4	—	4	19	53·59	991·8	4·66	22·17	62·53	22·82	23·01
2nd	Other Corps	—	8	4	—	—	—	1	2·43	—	—	—	—	—	—
	Army Hospital Corps	—	89	59	2	—	2	3	3·51	662·9	22·47	33·70	39·43	14·39	21·71
	Garrison Staff and Departments	—	37	4	1	—	1	—	·79	216·2	27·02	—	21·35	7·79	36·04
	Cyprus.														
	Royal Engineers	5	44	11	—	—	—	—	·46	250·0	—	—	10·45	3·81	15·26
1st	Royal West Kent Regiment	1	430	240	1	—	1	7	12·62	558·1	2·32	16·28	29·37	10·71	19·19
	Other Corps	—	—	—	—	—	—	1	·76	—	—	—	—	—	—
	Garrison Staff and Departments	5	38	8	1	—	1	—	·16	210·5	26·31	—	4·21	1·53	7·30

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	CANADA.													days.	days.
	Royal Artillery . . .	3-5	272	169	—	—	—	10	7·99	621·3	—	36·76	29·37	10·72	17·26
	Royal Engineers . . .	2/12-5	127	64	2	—	2	2	2·93	503·9	15·75	15·75	23·07	8·39	16·65
1st	Yorkshire Regiment . . .	3	705	584	2	—	2	39	33·28	828·3	2·84	55·32	47·20	17·22	20·79
2nd	Royal Irish Rifles . .	2/12	110	144	—	—	—	12	6·51	1309·0	—	109·09	59·78	21·58	16·48
1st	Royal Munster Fusiliers . .	4 11/12	538	376	3	1	4	16	20·66	698·8	7·43	29·74	38·40	14·00	20·04
	Garrison Staff and Departments .	Various	33	2	—	—	—	—	·07	60·6	—	—	2·12	·77	12·77
	BERMUDA.														
	Royal Artillery . . .	3	192	80	2	—	2	6	5·51	416·7	10·42	31·25	28·69	10·47	25·14
	Royal Engineers . . .	3	328	209	1	—	1	6	11·12	637·2	3·05	18·59	33·90	12·37	19·42
2nd	York and Lancaster Regiment .	2/12	159	187	—	—	—	—	7·60	1176·1	—	—	47·79	17·45	14·83
2nd	Royal Irish Rifles . . .	3	674	371	4	—	4	17	26·98	550·4	5·94	25·22	40·03	14·61	26·54
	Garrison Staff and Departments .	3	81	26	—	—	—	—	1·68	320·9	—	—	20·74	7·57	23·58
	WEST INDIES.														
5/D	Royal Artillery (Cinque Ports Division.)	3 2/12	93	60	1	1	2	4	4·25	645·2	21·50	43·01	45·70	16·68	25·85
6/1	Do. do. .	1 1/12	102	195	—	—	—	2	8·06	1911·8	—	19·61	79·02	28·83	15·08

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	WEST INDIES—*cont.*													days.	days.
	Royal Engineers	—	11	9	1	—	1	2	·69	818·2	90·90	181·82	62·72	22·89	27·98
1st	Royal Scots	$1\frac{7}{11}$	578	695	8	—	8	38	41·98	1202·4	13·85	65·74	72·63	26·51	22·04
	Detachment of Infantry	—	18	12	—	—	—	1	·28	666·7	—	55·55	15·55	5·67	8·51
	Garrison Staff and Departments	—	29	17	1	—	1	—	·56	586·2	34·48	—	19·31	7·04	12·02
	CAPE OF GOOD HOPE AND ST. HELENA.														
6th	Dragoons	2	460	296	1	—	1	21	28·94	643·5	2·17	45·65	62·91	22·96	35·69
	Royal Artillery	Various	353	249	2	—	2	23	15·68	705·4	5·67	65·16	44·42	16·21	22·98
	Royal Engineers	—	107	51	1	—	1	6	2·55	476·6	9·35	56·07	23·83	8·70	18·25
1st	Welsh Regiment	2	685	445	4	—	4	23	29·92	649·6	5·84	33·58	43·68	15·94	24·54
2nd	Northamptonshire Regiment	4	393	262	—	—	—	20	15·94	666·7	—	50·89	40·56	14·80	22·20
1st	Argyll and Sutherland Highlanders	4	698	497	—	2	2	40	39·53	712·0	2·87	57·31	56·63	20·67	29·01
	Garrison Staff and Departments	Various	157	56	3	—	3	25	5·09	356·7	19·11	15·92	32·42	11·83	33·18
	MAURITIUS.														
8/1	Western Division, Royal Artillery	3	77	152	—	—	—	4	6·07	1974·0	—	51·95	78·83	28·77	14·57
9/1	Western Division, Royal Artillery	—	12	18	—	—	—	—	·78	1500·0	—	—	65·00	26·23	17·48
2nd	Northamptonshire Regiment	2	243	523	4	—	4	8	26·97	2152·3	16·46	32·92	110·99	40·51	18·82

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Commands.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	MAURITIUS—*cont.*													days.	days.
1st	Welsh Regiment - - -	—	35	74	2	—	2	—	3·13	2114·3	57·14	—	89·43	32·64	15·44
	Garrison Staff and Departments -	—	21	20	—	—	—	—	·84	952·4	—	—	40·00	14·60	15·30
	CEYLON.														
5/1	Eastern Division Royal Artillery -	7	187	275	2	—	2	12	11·59	1470·6	10·69	64·17	61·98	22·62	15·38
6/1	Royal Engineers - -	Various	6		—	—	—	—	·10	500·0	—	—	16·66	6·08	12·16
1st	Royal Dublin Fusiliers - -	5	756	920	7	3	10	43	42·24	1216·9	—	56·87	55·87	20·49	16·84
	Garrison Staff and Departments -	Various	20	3	—	—	—	—	·07	150·0	—	—	3·50	1·27	8·51
	CHINA AND STRAITS SETTLEMENTS.														
8/1	Southern Division Royal Artillery -	7	96	105	—	—	—	1	7·70	1093·7	—	10·42	80·21	29·27	26·77
9/1	Southern Division Royal Artillery -	7	89	58	1	—	1	—	3·68	651·7	11·24	—	41·35	15·09	23·16
2nd	East Kent Regiment - - -	4	732	781	5	1	6	32	53·73	1066·9	8·20	43·71	73·40	26·79	25·11
1st	Royal Inniskillen Fusiliers - -	5	733	1,376	4	—	4	19	41·06	1877·2	5·46	25·92	56·02	20·45	10·89
	Garrison Staff and Departments -	—	63	19	1	—	1	3	·84	301·6	15·87	47·62	13·33	4·85	16·14

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	EGYPT.														
7th	Dragoon Guards	—	104	110	3	—	3	42	9·31	1057·7	28·85	403·85	89·52	32·67	30·89
19th	Hussars	1	507	634	15	—	15	61	41·17	1250·5	29·59	120·32	81·20	29·64	23·70
G/B	Royal Horse Artillery	1	189	192	11	—	11	3	10·79	1015·9	58·20	15·87	57·09	20·84	20·51
N/2	Royal Artillery	—	30	47	—	1	1	7	4·73	1566·7	33·33	233·33	157·67	57·55	36·73
I/2	Royal Artillery	1	167	161	11	1	12	11	10·07	964·1	71·86	65·87	60·30	22·01	22·83
C/3	Royal Artillery	—	44	36	—	—	—	5	2·49	818·2	—	113·64	56·59	20·66	25·25
5/1	Royal Artillery	1	109	153	4	—	4	6	12·79	1403·0	36·70	55·00	117·39	42·85	30·53
6/1	Royal Artillery	1	118	121	—	1	1	13	8·18	1025·4	8·47	110·17	69·32	25·30	24·68
	Royal Engineers	1	248	200	6	1	7	18	12·67	806·4	28·22	72·58	51·09	18·65	23·12
	Mounted Infantry	1	63	79	12	—	12	—	3·16	1254·0	190·48	—	50·16	18·31	14·60
2nd	Royal Irish Regiment	—	75	185	6	1	7	—	6·95	2466·0	93·33	—	92·63	33·81	13·73
1st	Royal Sussex	1	786	842	39	2	41	43	50·43	1071·2	52·16	54·71	64·16	23·42	21·86
1st	South Stafford	—	227	316	3	—	3	36	20·87	1392·1	13·22	15·86	91·94	33·56	24·11
1st	Royal Highlanders	—	781	812	24	—	24	31	51·08	1039·7	30·73	39·69	65·40	23·87	22·96
2nd	Duke of Cornwall's Light Infantry	1	800	1,250	22	—	22	42	82·97	1562·0	27·00	52·50	103·71	37·86	24·23
1st	Berks Regiment	—	255	276	3	1	4	35	17·08	1082·3	15·68	137·25	66·98	24·45	22·59
1st	Royal West Kent Regiment	1	321	341	3	—	3	24	31·25	1062·0	9·00	74·77	97·35	35·54	33·45

Brigade or Battalion.	Corps and Commands.	Completed Years of Service in Foreign Commands.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalids sent Home.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.
					In the Command.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly Sick.		
	EGYPT—*cont.*														
1st	Shropshire Regiment	—	96	108	3	1	4	25	10·69	1125·0	41·67	260·42	111·35	40·64	36·13
3rd	Kings' Royal Rifles	1	659	667	13	2	15	23	39·66	1012·1	22·76	34·90	60·18	21·97	21·70
2nd	Highland Light Infantary	—	84	83	1	—	1	8	3·94	988·1	11·90	95·24	46·90	17·12	17·33
1st	Gordon Highlanders	1	808	964	20	1	21	53	61·07	1193·1	25·99	65·59	75·58	27·59	23·12
1st	Cameron Highlanders	1	672	719	16	—	16	52	36·49	1069·9	23·81	77·38	54·30	19·82	18·52
	Commissariat and Transport Corps	1	254	238	8	—	8	21	18·42	937·0	31·50	82·62	72·52	26·47	28·25
	Ordnance Store Corps	1	101	78	2	1	3	4	5·85	772·3	29·70	39·60	57·92	21·14	27·37
	Army Hospital Corps	1	285	266	17	2	19	30	15·34	933·3	66·66	105·26	53·82	19·65	21·05
	Garrison Staff and other Corps	—	114	117	15	3	18	76	33·29	1026·3	157·89	666·66	292·02	106·59	103·85

ABSTRACT No. XLIII.—TABLE showing the ADMISSIONS, MORTALITY, and INVALIDING in each CORPS serving in the BENGAL COMMAND during the year 1883, taken from the REPORT of the PRINCIPAL MEDICAL OFFICER.

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average daily Sick.				yrs.	mo.
CAVALRY.														
1st Dragoon Guards	388	755	3	23	33·08	1945·9	7·73	59·28	85·26	31·12	15·99	Meerut, 10 months; Rawal Pindi, ¼ month; march, 1¾ months.	4	0
6th „ „	380	502	2	20	23·30	1321·1	5·26	52·63	61·32	22·38	16·94	Sialkot, 11 months; Meean Meer, ¾ month; march, ¼ month; depôt, Sialkot, 2 months.	6	0
8th Hussars	370	574	3	14	21·52	1551·4	8·11	37·84	58·16	21·23	13·68	Rawal Pindi, 11 months; march, 1 month; Dett. Gharial, 5½ months; Dett. Meean Meer, ½ month.	5	0
9th Lancers	424	377	—	7	17·25	889·2	—	16·51	40·68	14·85	16·70	Umballa, 12 months	9	0
10th Hussars	393	533	4	10	32·55	1356·2	10·18	25·45	82·82	30·23	22·29	Lucknow, 12 months	11	0
13th „	405	374	1	4	21·36	923·5	2·47	9·88	52·74	19·25	20·85	Muttra, 10½ months; Meerut, 1 month; march, ½ month.	10	0
Total	2,360	3,115	13	78	149·06	1319·9	5·51	33·05	63·16	23·05	17·47			
ROYAL ARTILLERY.														
D/A Royal Horse Artillery	145	127	2	8	8·49	875·9	13·79	55·17	58·55	21·37	24·40	Rawal Pindi, 12 months; Dett. Gharial, 5¾ months	7	0
E/A „ „	162	188	—	6	9·51	1160·5	—	37·04	58·64	21·43	18·46	Meerut, 12 months	7	0
F/A „ „	149	119	1	3	4·67	798·7	6·71	20·18	31·34	11·44	14·32	Umballa, 12 months	8	0
G/A „ „	168	220	2	4	11·85	1309·5	11·90	23·81	70·54	25·75	19·66	Meerut, 12 months	8	0

Corps.		Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.	
							Admissions into Hospital.	Deaths.	Invalids.	Average Daily Sick.				yrs.	mo.
L/A Royal Horse Artillery	-	153	219	1	8	11·10	1431·4	6·54	52·29	72·55	26·48	18·50	Sialkot, 10 months; Umballa, 1 month; march, 1 month.	7	0
K/B " "	-	160	104	2	8	6·34	650·0	12·50	50·00	39·62	14·46	22·25	Umballa, 11 months; Meean Meer, ½ month; march, ½ month.	3	0
N/B " "	-	155	246	—	5	14·37	1587·1	—	32·26	92·71	33·84	21·32	Lucknow, 12 months - - - - -	6	0
A/1 Royal Artillery -	-	34	54	—	—	4·00	1588·2	—	—	117·65	42·94	27·04	Dinapore, 1 month; march, ½ month - -	0	1½
B/1 " " -	-	148	240	5	1	9·57	1621·6	33·78	6·76	64·66	23·60	14·55	Ferozepore, 10 months; Mooltan, 1½ months; march, ½ month.	3	0
G/1 " " -	-	172	182	5	3	8·08	1058·1	29·07	17·44	46·98	17·15	16·20	Benares, 10 months; Cawnpore, 1½ months; march, ½ mouth.	3	0
H/1 " " -	-	140	167	2	2	7·13	1192·9	14·29	14·29	50·93	18·59	15·58	Jullundur, 9½ months; march, 1½ mouths - -	15	0
2/1 Scottish Divn. -	-	8	16	—	—	—	2000·0	—	—	—	—	—	Rawal Pindi, 1½ months - - - -	0	1½
3/1 Scottish Divn. -	-	13	18	—	—	·81	1384·6	—	—	62·31	22·74	16·43	Calcutta. 1¼ months; march, ¼ month - -	0	1½
4/1 Lancashire Divn. -	-	111	148	2	1	5·97	1333·3	18·02	9·01	53·78	19·63	14·72	Ferozepore, 10 months; Fort Lahore, 2 months -	4	0
5/1 South Irish Divn. -	-	104	73	—	—	2·87	701·9	—	—	27·60	10·07	14·35	Umballa, 1¾ months; Jutogh, 7½ months; Rawal Pindi, ½ month; march, 2¼ months.	13	0
5/1 Western Divn. -	-	110	92	2	3	5·14	836·4	18·18	27·27	46·73	17·06	20·39	Fortress Gwalior, 10¼ months; Ferozepore, 1½ months; march, ¼ month.	5	0
5/1 Southern Divn. -	-	132	195	1	12	6·50	1477·3	7·58	90·91	49·24	17·97	12·17	Agra, 11¼ months; Roorkee, ¾ month - -	8	0
5/1 Lancashire Divn. -	-	88	258	4	12	12·14	2931·8	45·45	136·36	137·95	50·35	17·17	Fort Lahore, 10½ months; Fortress Gwalior, 1½ months.	8	0
6/1 Western Divn. -	-	87	137	1	3	8·12	1574·7	11·49	34·48	93·33	34·07	21·63	Morar, 12 months - - - - -	13	0
6/1 Southern Divn. -	-	110	159	2	1	8·85	1445·5	18·18	9·09	80·45	29·37	20·32	Fort Allahabad, 12 months - - - -	8	0
6/1 South Irish Divn. -	-	2	—	—	—	—	—	—	—	—	—	—	March, ½ month - - - - -	7	½

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Daily Sick.				yrs.	mo.
7/1 Northern Divn. - -	120	121	2	2	5·09	1008·3	16·67	16·67	42·42	15·48	15·35	Rawal Pindi, 3¾ months; Khyra Gully, 6 months; Umballa, ¾ month; march, 1½ months.	6	0
7/1 London Divn. - -	76	104	2	1	4·44	1368·4	26·32	13·16	58·42	21·32	15·58	Calcutta, 9½ months; march, ½ month - -	13	0
7/1 Southern Divn. - -	96	135	2	4	7·64	1406·2	20·83	41·67	79·58	29·05	20·66	Peshawar, 3½ months; Campbellpore, 8¼ months; march, ¼ month.	8	0
8/1 Northern Divn. - -	106	290	2	12	11·65	2735·8	18·87	113·21	109·91	40·12	14·66	Fort Attock, 3 months; Campbellpore, 9 months -	5	0
8/1 London Divn. - -	127	365	1	4	9·04	2874·0	7·87	31·50	71·18	25·98	9·04	Delhi, 12 months - - - - -	8	0
8/1 Eastern Divn. - -	105	75	—	1	4·95	714·3	—	9·52	47·14	17·21	24·09	Rawal Pindi, 8½ months; march, ½ month; Dett. Bera Gully, 5 months.	9	0
9/1 Northern Divn. - -	131	101	1	2	3·00	771·0	7·63	15·27	22·90	8·36	10·84	Rawal Pindi, 10 months; march, 1¾ months; Dett. Kallabagh, 6 months.	6	0
9/1 C. L. Divn. - - -	12	8	—	—	·26	666·7	—	—	21·67	7·91	11·86	March, 1½ months - - - - -	0	7½
J/2 Royal Artillery - -	164	218	3	9	15·62	1329·3	18·29	54·88	95·24	34·76	26·15	Allahabad, 12 months - - - - -	6	0
R/2 „ „ - -	153	311	1	8	13·33	2332·7	6·54	52·29	87·12	31·20	15·64	Peshawar, 12 months; Dett. Cherat, 7 months -	6	0
K/3 „ „ - -	199	198	3	10	8·77	995·0	15·08	50·25	44·07	16·09	16·17	Nowgong, 10½ months; Morar, 1 month; march, ½ month.	3	0
L/3 „ „ - -	161	186	4	4	5·70	1155·3	24·84	24·84	35·40	12·92	11·19	Dinapore, 10 months: march, 2 months - -	4	0
M/3 „ „ - -	152	172	1	7	9·08	1131·6	6·58	46·05	59·74	21·80	19·27	Meerut, 10 months; march, 2 months - -	3	0
N/3 „ „ - -	171	239	3	9	11·44	1397·7	17·54	52·63	66·90	24·42	17·47	Cawnpore, 10¾ months; march, 1¼ months - -	3	0
O/3 „ „ - -	167	206	—	2	7·32	1233·5	—	11·98	43·83	16·00	12·97	Agra, 12 months - - - - -	3	0
P/3 „ „ - -	169	390	—	2	11·89	2307·7	—	11·83	70·36	25·68	11·13	Mecan Meer, 12 months - - - -	7	0

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Daily Sick.				yrs.	mo.
Q/3 Royal Artillery - -	164	263	4	3	11·34	1603·7	24·39	18·29	69·15	25·24	15·74	Saugor, 11½ months; march, ½ month - -	7	0
R/3 " " - -	149	326	1	4	15·94	2187·9	6·71	26·85	106·98	39·05	17·85	Fyzabad, 12 months - - - - -	7	0
B/4 " " - -	130	246	1	5	10·89	1892·3	7·69	38·46	83·77	30·58	16·16	Rawal Pindi, 12 months; Dett. Gharial, 5¾ months	10	0
C/4 " " - -	157	407	1	5	6·77	2592·4	6·37	31·85	43·12	15·74	6·07	Meean Meer, 10 months; march, 2 months -	10	0
D/4 " " - -	156	231	2	8	13·50	1480·8	12·82	51·28	86·54	31·59	21·33	Lucknow, 12 months - - - - -	10	0
E/4 " " - -	159	248	1	10	11·99	1559·7	6·29	62·89	75·41	27·52	17·65	Bareilly, 12 months - - - - -	10	0
F/4 " " - -	127	237	2	3	12·34	1866·1	15·75	23·62	97·17	35·47	19·00	Morar, 12 months - - - -	10	0
G/4 " " - -	150	204	2	9	10·93	1360·0	13·33	60·00	72·87	26·60	19·56	Meerut, 12 months - - - - -	10	0
L/4 " " - -	175	197	1	7	10·72	1125·7	5·71	40·00	61·26	22·36	19·86	Mooltan, 10¾ months; Ferozepore, ½ month; march, ¾ month,	7	0
O/4 " " - -	173	211	1	3	8·08	1219·7	5·78	17·34	46·71	17·05	13·98	Barrackpore, 11⅝ months; march, ⅜ month -	7	0
Total - - -	6,000	8,651	73	214	387·23	1441·8	12·17	35·67	64·54	23·56	16·34			
41st Coy., Royal Engineers -	42	29	2	1	·94	690·5	47·62	23·81	22·38	8·17	11·83	Roorkee, 12 months - - - - -	16	0
INFANTRY.														
2nd R.W. Surrey Regiment -	862	1,171	10	29	52·12	1358·5	11·60	33·64	60·46	22·07	16·25	Peshawar, 1 months; Subathu, 7 months; Umballa, 1¾ months; march, 2¼ months; Dett. Intogh, 7 months.	6	0
2nd Northumberland Fusiliers	713	756	—	19	35·26	1060·3	—	26·65	49·45	18·05	17·02	Agra, 1 month; Chakirata, 7 months; Meerut, 1⅔ months; march, 2⅓ months.	4	0
2nd R. Warwickshire Regt. -	664	686	6	39	48·20	1033·1	9·04	58·73	72·59	26·50	25·65	Fort William, 12 months - - - -	6	0

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Daily Sick.				yrs.	mo.
2nd Liverpool Regiment	671	1,119	3	16	49·46	1667·7	4·47	23·85	73·71	26·90	16·13	Meean Meer, ½ month; Ranikhet, 8 months; Meerut, 1 month; march, 2½ months.	7	0
2nd Norfolk Regiment	800	1,520	14	18	74·40	1900·0	17·50	22·50	93·00	33·95	17·87	Morar, 12 months; Dett. Fortress Gwalior 1½ months.	10	0
2nd Lincolnshire Regiment	533	669	10	6	37·61	1255·2	18·76	11·26	70·56	25·76	20·52	Sitapur, 12 months; Dett. Chunar, 6 months	2	0
Half Bn. " "	242	326	9	1	14·08	1347·1	37·19	4·13	58·18	21·24	15·76	Benares, 10½ months	2	0
2nd Devonshire "	911	809	6	14	39·88	888·0	6·59	15·37	43·78	15·98	17·99	Jullundur, 10 months; Umballa, 1½ months; march, ½ month; Dett. Daghai, 7 months; Dett. Bhalg, 7 months.	7	0
1st Suffolk "	736	1,205	9	38	71·36	1637·2	12·23	51·63	96·96	35·39	21·62	Fyzabad, 11 months; Roorkee, 1 month	8	0
Half Bn. "	46	65	—	—	2·07	1413·0	—	—	45·00	16·42	11·62	Delhi, 1½ months	8	0
2nd W. Yorkshire "	720	1,594	5	24	59·80	2213·9	6·94	33·33	83·06	30·32	13·69	Nowehera, 1 month; Sialkot, 10 months; march, 1 month; Dett. Amritsar, 10 months.	6	0
2nd Leicester "	816	1,138	7	22	49·95	1394·6	8·58	26·96	61·21	22·34	16·02	Jubbulpore, 12 months; Dett. Saugor, 12 months	8	0
1st Royal Irish "	598	811	3	22	35·07	1356·2	5·02	36·79	58·65	21·41	15·78	Rawal Pindi, 4½ months; Kooldunnah, 5½ months; Meerut, ½ month; march, 1½ months; Dett. Chwiegla Gully, 5 months.	10	0
2nd Cheshire "	891	1,984	10	31	75·74	2226·7	11·22	34·79	85·01	31·03	13·93	Peshawar, 4½ months; Cherat, 7½ months	11	9
1st R. W. Fusiliers	883	906	8	13	71·38	1026·0	9·06	14·72	80·84	29·51	28·76	Dum Dum, 11½ months; march, ½ month; Dett. Barrackpore, 11 months.	4	0
1st K. O. Borderers	786	879	5	12	34·11	1118·3	6·36	15·27	43·40	15·84	14·16	Dagshai, 8 months; Umballa, 4 months	9	0
1st East Lancashire Regiment	781	2,054	9	14	76·76	2630·0	11·52	17·93	98·28	35·87	13·64	Meean Meer, 11½ months; march ½ month; Dett. Fort Lahore, 11½ months; Dett. Amritsar, 2 months.	4	0
1st W. Riding "	1,042	1,531	3	30	61·91	1469·3	2·88	28·79	59·41	21·69	14·76	Nowshera, 11 months; march, 1 month; Dett. Cherat, 7 months; Dett. Sialkot, 2½ months; Dett. Fort Attock, 11 months.	9	0

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Daily Sick.				yrs.	mo.
1st Border Regiment - -	948	1,202	7	29	80·37	1267·9	7·38	30·59	84·78	30·94	24·41	Agra, 11 months; march, 1 month - - -	10	0
1st South Lancashire Regt. -	889	2,368	6	25	99·88	2663·7	6·75	28·12	112·35	41·01	15·40	Peshawar, 11 months; march, 1 month; Dett. Cherat, 6¼ months.	12	0
1st South Yorkshire „ -	894	1,011	6	36	61·30	1130·9	6·71	40·27	68·57	25·08	22·13	Bareilly, 10¾ months; march, 1¼ months; Dett. Moradabad, 10½ months.	12	0
2nd Dorsetshire „ -	398	520	2	18	22·28	1306·5	5·03	45·23	55·98	20·43	15·64	Roorkee, 11 months; march, 1 month - -	13	0
Half Bn. 2nd Dorsetshire „ -	257	599	8	21	18·25	2330·7	31·13	81·71	71·01	25·92	11·12	Delhi, 10¾ months; march, ¼ month - -	13	0
4th King's Royal Rifle Corps -	799	1.140	8	11	41·08	1426·8	10·01	13·77	51·41	18·77	13·15	Ferozepore, 12 months - - - -	7	0
1st Durham L. Infantry -	617	844	6	20	40·03	1367·9	9·72	32·41	64·88	23·68	17·31	Meerut, 9¾ months; Allahabad, 2¼ months; Dett. Fatehgarh, 9¾ months.	12	0
2nd East Surrey Regt. -	938	1,248	23	23	37·42	1330·5	24·52	24·52	39·89	14·56	10·94	Dinapore, 12 months; Dett. Fort Allahabad, 2 months; Dett. Chunar, 4 months.	13	0
2nd Seaforth Highlanders -	654	809	5	22	44·22	1237·0	7·65	33·64	67·61	24·68	19·95	Lucknow, 12 months - - - - -	3	0
2nd North Lancashire Regt. -	635	735	12	20	35·55	1157·5	18·90	31·50	55·98	20·43	17·65	Allahabad, 11 months; Dett. Fort Allahabad, 10 months; Dett. Chunar, 2½ months.	10	0
1st Royal Irish Fusiliers -	97	109	—	—	2·00	1123·7	—	—	20·62	7·53	6·70	Rawal Pindi, 1¼ months; march, ¼ month -	0	1½
1st Connaught Rangers -	400	588	5	14	25·18	1470·0	12·50	35·00	62·95	22·98	15·63	Choubuttia, 6¾ months; Bareilly, 2 months; march, 3¼ months.	5	0
Half Bn. „ „ -	207	623	5	7	19·97	3009·7	24·15	33·82	96·47	35·21	11·70	Shahjehanpur, 11½ months - - - -	5	0
2nd Scottish Rifles - -	650	738	9	20	41·93	1135·4	13·85	30·77	64·51	23·55	20·74	Cawnpore, 12 months; Dett. Fatehgaih, 2¼ months	5	0
2nd Derbyshire Regiment -	734	1,347	16	25	78·63	1835·1	21·80	34·06	107·13	39·10	21·31	Lucknow, 12 months - - - - -	1	2

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.	Years of Service in India.
						Admissions into Hospital.	Deaths.	Invalids.	Average Daily Sick.				yrs. mo.
2nd Manchester Regiment	804	1,191	11	6	62·50	1481·3	13·68	7·46	77·74	28·37	19·15	Mooltan, 12 months - - - - -	1 1½
2nd Wiltshire "	688	883	3	15	54·07	1283·4	4·36	21·80	78·59	28·69	22·35	Rawal Pindi, 12 months; Dett., Gharial, 6 months	1 11
1st Leinster "	789	751	3	13	32·45	951·8	3·80	16·48	41·13	15·01	15·77	Umballa, 3¾ months; Solon, 6½ months; Fyzabad, 1½ months; march, ¼ month.	7 0
4th Bn. Rifle Brigade	826	1,052	19	26	48·57	1273·6	23·00	31·48	58·80	21·46	16·85	Jhansi, 12 months; Dett., Nowgong, 10½ months; Dett. Fortress Gwalior, 11½ months.	11 0
Total	24,919	36,981	271	699	1734·84	1484·0	10·88	28·05	69·62	25·41	17·12		
Men Attached (Corps, not stated).	279	225	—	—	6·04	806·5	—	—	21·65	7·90	9·80	Various station hospitals.	
Garrison Staff and Departments.	795	650	23	57	54·15	817·6	28·93	71·70	68·11	24·86	30·41	Various station hospitals.	
Grand Total	34,395	49,651	382	1,049	2332·26	1443·6	11·11	30·50	67·81	24·75	17·15		

ABSTRACT No. XLIV.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the ADMISSIONS, MORTALITY, and INVALIDING in each CORPS serving in the MADRAS COMMAND.

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.		Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Constantly Sick.				months.	yrs.	mo.
CAVALRY.															
12th Lancers	463	707	4	19	34	1527·00	8·64	41·04	73·43	26·80	17·55	Bangalore	12	7	0
14th Hussars	344	289	4	14	19	840·12	11·63	40·70	55·23	20·16	23·99	Secunderabad	12	2	0
Total	807	996	8	33	53	1234·20	9·91	40·89	65·67	23·97	19·42				
ROYAL ARTILLERY.															
E/B Bde. Royal Horse Artillery	170	191	2	5	12	1123·53	11·76	29·41	70·59	25·76	22·93	Bangalore	12	10	0
M/B „ „ „	141	159	1	4	10	1127·66	7·09	28·37	70·92	25·89	22·96	Secunderabad	12	6	0
D/1 „ Royal Artillery	28	26	—	—	1	928·57	—	—	35·71	13·03	14·04	Secunderabad, 2 (arrived from England, 2nd Nov. 1883).		2/12	0
L/1 „ „	134	143	—	3	7	1067·16	—	22·39	52·24	19·07	17·86	Secunderabad, 10¼ (left for England 2nd Nov. 1883).		14	0
O/1 „ „	127	169	5	—	8	1330·71	39·37	—	62·99	22·99	17·28	On the march, 2⅓, and Kamptee, 9⅔		14	0
P/1 „ „	154	156	2	5	8	1012·99	12·99	32·47	51·95	18·96	18·71	Secunderabad, 10½, and on the march, 1½		4	0
Q/1 „ „	153	175	1	2	8	1143·79	6·54	13·07	52·29	19·08	16·68	Bangalore, 1⅓, on the march, ⅔, and St. Thomas' Mount	10	5	0
R/1 „ „	159	193	1	7	14	1213·84	6·29	44·02	88·05	32·14	26·47	Bellary	12	5	0
S/1 „ „	163	237	—	3	13	1453·99	—	18·40	79·75	29·11	20·02	Bangalore	12	4	0
M/2 „ „	157	115	—	6	7	732·48	—	38·21	44·59	16·27	22·22	St. Thomas' Mount, 11¼, and Bangalore, ¾		5	0

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.		Years of Service in India.
						Admissions into Hospital.	Deaths.	Invalids.	Average Constantly Sick.				months.	yrs. mo.
1/3 Bde. Royal Artillery	156	228	4	5	13	1461·54	25·64	32·05	83·33	30·41	20·81	Bangalore	12	4 0
7/1 Eastern Division, R.A.	108	96	—	3	6	888·89	—	27·77	55·56	20·27	22·81	Thayetmyo	12	4 0
9/1 „ „	128	110	—	3	6	859·37	—	23·44	46·87	17·11	19·91	Toungoo	12	3 0
8/1 „ „	3	—	—	—	—	—	—	—	—	—	—	Thayetmyo (embarked for Calcutta 15th Jan. 1883).		—
4/1 Welsh Div. „	83	78	—	4	4	939·76	—	48·19	48·19	17·59	18·72	Secunderabad	12	4 0
5/1 „ „	112	85	2	3	6	758·93	17·86	26·78	53·57	19·55	25·77	St. Thomas' Mount and Madras	12	4 0
4/1 North Irish Div. „	102	144	3	10	9	1411·76	29·41	98·04	88·23	32·21	22·78	Rangoon	12	2 0
C/1 South Irish Div. „	84	90	1	2	5	1071·43	11·90	23·81	59·52	21·73	20·27	Thayetmyo	11½	8 0
Details, R.A.	19	2	—	—	—	105·26	—	—	—	—	—			
Total	2,181	2,397	22	65	137	1099·04	10·08	29·80	62·81	22·93	20·86			
42nd Coy., Royal Engineers	58	26	1	5	2	448·27	17·24	86·21	34·48	12·59	28·08			
INFANTRY.														
2nd Bn. Roy. Fusiliers C. L. Regiment.	858	863	6	21	50	1005·83	6·99	24·47	58·27	21·27	21·15	Bellary, ½, and on the march ½		11 0
2nd Bn. Somersetshire Regt.	655	612	11	19	24	934·35	16·79	29·01	36·64	13·37	11·04	Kamptee, 11½, and on the march, ¼, and Rangoon, ¼.		5 0
2nd Bn. Bedfordshire Regt.	474	320	6	9	19	675·11	12·66	18·99	40·08	14·63	21·67	Thayetmyo	12	8 0

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths in the Command.	Invalided.	Average Number Constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.		Years of Service in India.	
						Admissions into Hospital.	Deaths.	Invalids.	Average Constantly Sick.				months.	yrs.	mo.
Left Wing 2nd Bn. Bedfordshire Regiment.	364	302	6	7	16	829·67	16·48	19·23	43·95	16·04	19·33	Toungoo	12	8	0
2nd Bn. Royal Scots Fusiliers	770	491	8	15	38	637·66	10·39	19·48	49·35	18·01	28·25	Secunderabad	12	$1\frac{11}{12}$	0
2nd Bn. South Wales Borderers.	644	502	6	17	37	779·50	9·32	26·39	57·45	20·97	26·90	Secunderabad	12	3	0
2nd Bn. Hampshire Regiment	789	703	5	27	47	891·01	6·34	34·22	59·57	21·74	24·40	Cannanore (detachment at Calicut)	12	11	0
1st Bn. Oxfordshire Light Infantry.	822	1,005	11	27	66	1222·63	13·38	32·84	80·29	29·31	23·97	Bangalore	12	11	0
1st Bn. Essex Regiment	619	673	4	22	39	1087·24	6·46	35·54	63·00	22·99	21·15	Madras (detachment at Palaveram and Malliaporam).	12	12	0
2nd Bn. Middlesex Regiment D.C.O.	740	881	7	22	40	1190·54	9·46	29·73	54·05	19·73	16·54	Rangoon, 11¾, on the march, ¼ (detachment at Port Blair).	12	3	0
Details of Infantry	51	50	—	—	2	980·39	—	—	30·21	14·31	14·60				
Total	6,786	6,402	70	186	378	943·41	10·31	27·41	55·70	20·33	21·55				
DEPÔTS.															
Convalescent Depôt	161	276	3	46	34	1714 28	18·63	285·71	211·18	77·08	44·96	Poonamallee.			
Do.	614	419	4	12	30	682·41	6·51	19·54	48·86	17·83	26·13	Wellington.			
Total	775	695	7	58	64	896·77	9·03	74·84	82·51	30·14	33·61				
Garrison, Staff, and Departments.	5	1	—	—	—	200·00	—	—	—	—	—				
General Total	10,612	10,517	108	347	634*	991·05	10·18	32·70	59·74	21·81	22·00				

* Excluding the convalescents and detained.

ABSTRACT No. XLV.—TABLE taken from the REPORT of the PRINCIPAL MEDICAL OFFICER, showing the ADMISSIONS, MORTALITY, and INVALIDING in each CORPS, serving in the BOMBAY COMMAND for the year 1883.

Corps.	Completed years of Service in Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalids sent Home.	Average number constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.
							Admitted.	Died.	Invalided.	Constantly Sick.			
CAVALRY.													
17th Lancers - - -	5	395	526	3	17	21·60	1331·6	7·59	43·04	54·68	17·43	14·99	Mhow, 12 months.
ROYAL ARTILLERY.													
D Battery, B Brigade R.H.A.	11	155	191	1	7	8·17	1232·3	6·45	45·16	52·71	19·24	15·61	Kirkee, 12 months.
E „ 1 „ R.A. -	1	36	12	—	—	·88	333·33	—	—	24·44	8·92	26·75	Poona, ½ month; Kirkee, 1 month.
F „ 1 „ „ -	1	41	17	—	—	·98	414·6	—	—	23·90	8·73	21·06	„ „ „ „
I „ 1 „ „ -	14	136	209	1	17	8·89	1536·8	7·35	125·00	65·37	23·86	15·53	Ahmedabad, 12 months.
L „ 1 „ „ -	15	8	2	—	—	·09	250·0	—	—	12·25	4·12	16·50	Poona, 1 „
M „ 1 „ „ -	6	137	166	1	6	7·37	1211·7	7·30	43·80	53·79	19·63	16·20	Nasirabad, 10 „
N „ 1 „ „ -	14	152	145	—	—	6·18	954·0	—	—	40·66	14·84	15·56	Hyderabad, 12 „
A „ 2 „ „ -	9	154	149	1	8	7·72	967·5	6·50	51·95	50·13	18·30	18·91	Kirkee, 11 „
B „ 2 „ „ -	9	134	280	2	13	10·87	2089·5	14·93	97·01	81·12	29·61	14·17	Neemuch, 12 „
C „ 2 „ „ -	9	152	171	2	9	12·00	1125·0	13·16	59·21	78·95	28·81	25·61	Kirkee, 1 month; Ahmednagar, 11 months.
D „ 2 „ „ -	9	151	130	—	5	5·29	860·9	—	33·11	35·03	12·12	14·85	„ 11 months.
E „ 2 „ „ -	8	136	180	1	2	9·89	1323·5	7·35	14·71	71·99	26·54	20·06	„ 12 „

Corps.	Completed years of Service in Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalids sent Home.	Average number constantly Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.
							Admitted.	Died.	Invalided.	Constantly Sick.			
F Battery, 2 Brigade R.A.	9	215	135	—	2	17·08	628·0	—	9·30	79·44	28·99	46·18	Nasirabad, 1 month; Deesa, 10 months.
G " 2 " "	9	169	188	—	9	9·94	1112·4	—	53·25	58·82	27·38	19·30	Belgaum, 12 months.
A " 4 " "	10	139	244	—	6	9·57	1755·4	—	43·16	68·85	25·13	14·31	Mhow, 12 "
Batt., 1 Brgd., R.A., N.Ir.Dn.	9	93	108	1	2	4·33	1161·2	10·75	21·51	46·56	16·99	14·63	Colaba, 1 month; Mhow, 11 months.
7 " 1 " C.P. Dn.	2	99	144	1	7	9·61	1454·5	10·10	70·71	97·07	35·43	24·36	Quetta, 12 months.
7 " 1 " Scot.Dn.	12	97	59	—	—	1·88	602·1	—	—	19·38	7·07	11·63	Aden, 11 "
7 " 1 " Lond.Dn.	—	14	26	2	—	·97	1857·1	142·18	—	69·29	25·28	13·61	Aden, 2 "
8 " 1 " C.P. Dn.	2	106	93	—	5	5·86	877·3	—	47·17	55·19	20·14	22·96	Colaba, 11 months; Mhow, 1 month.
8 " 1 " Scot.Dn.	12	94	71	1	—	2·30	755·3	10·64	—	24·47	8·92	11·82	Aden, 11 months
8 " 1 " East.Dn.	—	14	29	—	—	1·20	2071·4	—	—	85·71	31·28	15·10	Aden.
9 " 1 " Scot.Dn.	13	118	138	1	4	6·48	1169·5	8·47	33·98	54·91	20·04	17·14	Colaba, 2 "
9 " 1 " C.P. Dn.	5	80	82	1	2	3·21	1025·0	12·50	25·00	80·13	14·65	14·17	Poona, 5½ months; Kandalla, 5 months.
Total	—	2,630	2,969	16	104	150·75	1128·9	6·08	39·54	57·32	20·92	18·53	
Royal Engineers	—	31	20	—	1	1·95	645·2	—	32·26	62·90	22·97	35·60	Kirkee, 12 months.

Corps.	Completed years of Service in Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalids sent Home.	Average number constantly Sick.	Ratio per 1,000 of Strength. Admitted.	Ratio per 1,000 of Strength. Died.	Ratio per 1,000 of Strength. Invalided.	Ratio per 1,000 of Strength. Constantly Sick.	Average Sick Time to each Soldier.	Average Duration of each Case of Sickness.	Stations occupied during the Year.
INFANTRY.													
1st Worcestershire Regiment	5	626	1,421	5	31	37·69	2269·9	7·99	49·52	60·21	21·97	9·68	Nasirabad, 12 months.
1st York and Lanc. Regiment	12	585	426	3	3	17·10	728·2	5·11	5·11	29·40	10·67	14·64	Aden, 12 „
1st Bn. Rifle Brigade - -	4	758	975	9	58	54·95	1286·3	11·87	76·52	72·36	26·46	20·57	Ahmednagar, 11½ „
North Lancashire Regiment	11	35	37	—	—	2·75	1057·1	—	—	78·57	28·68	27·13	Kirkee, 1½ „
2nd Royal Lancaster Regiment	4	660	812	4	10	35·80	1230·3	6·06	15·15	54·15	19·80	16·09	Colaba, 10½ months; Poona, 1½ months.
2nd East Yorkshire Regiment	9	808	926	8	30	52·54	1146·0	9·90	37·13	65·03	23·73	20·71	Colaba, 1 month; Poona, 11 months.
2nd Lancashire Fusiliers -	3	847	1,767	11	34	71·02	2086·2	12·99	40·14	85·03	30·60	14·66	Mhow, 12 months.
2nd North Stafford Regiment	4	924	1,012	15	23	63·07	1095·2	16·23	24·89	68·26	24·91	22·75	Karachi, 2 months; Quetta, 9½ months.
2nd Gloucestershire Regiment	4	764	896	7	23	40·44	1172·8	9·16	30·10	52·93	19·32	16·47	Karachi, 9½ „ Quetta, 2½ „
2nd R. I. Fusiliers - -	14	615	461	7	22	25·16	749·6	11·38	35·77	40·91	14·93	19·92	Belgaum, 12 months.
Total -	—	6,622	8,733	69	234	400·52	1318·8	10·42	35·34	60·48	22·76	16·74	
DEPÔTS.													
Colaba Depôt -	—	79	48	3	8	11·66	607·6	37·97	101·27	147·59	53·87	88·67	Colaba.
Deolalee Depôt - -	—	682	626	14	34	17·07	919·3	20·53	49·85	25·03	9·13	9·95	Deolalee.

Corps.	Completed Years of Service in Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalids sent Home.	Average number constantly sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average duration of each Case of Sickness.	Stations occupied during the Year.
							Admitted.	Died.	Invalided.	Constantly Sick.			
DEPÔTS—*continued.*													
Convalescents - -	—	33	66	3	14	3·45	2000·0	90·91	424·24	104·55	38·15	19·07	Ghizree, 12 months.
" - -	—	82	121	—	—	5·70	1475·6	—	—	69·51	25·38	17·20	Purandhar, 12 months.
" - -	—	30	158	—	—	4·71	5266·7	—	—	157·00	57·30	10·88	Taragarh, 7 months.
" - -	—	87	145	3	4	3·58	1666·71	34·48	45·96	41·15	15·02	9·01	Aden, 12 months.
Garrison Staff and Departments - - -	—	135	32	—	2	2·45	237·2	—	14·81	18·15	6·62	27·04	
Various Corps - -	—	65	72	1	3	3·25	1107·7	15·38	46·15	50·00	18·25	16·47	
On the March - -	—	219	107	1	—	2·25	488·6	4·57	—	10·27	3·75	7·67	
Military Prison - -	—	91	54	2	—	2·92	593·4	21·99	—	32·09	11·71	19·74	
Rest Camp - - -	—	2	2	1	—	0·01	1000·0	500·00	—	5·00	1·50	1·50	
Total - - -	—	1,505	1,431	28	65	57·05	950·8	18·60	43·19	37·91	13·84	14·55	
Grand Total - -	—	11,183	13,679	116	421	631·87	1223·2	10·37	37·65	56·50	20·62	16·86	

APPENDIX No. I.

FURTHER REPORT ON INVALIDS ADMITTED INTO THE ROYAL VICTORIA HOSPITAL, NETLEY, FOR WOUNDS AND INJURIES RECEIVED IN EGYPT DURING THE CAMPAIGN OF 1882.

By Surgeon-General T. Longmore, C.B., h.p., Professor of Military Surgery, Army Medical School.

In a previous report, printed in volume 23 of the Army Medical Department Reports, Appendix No. 3, page 289, I forwarded a descriptive numerical of the wounds received in action during the Egyptian campaign of 1882 which were subsequently treated at Netley, and this return was accompanied with remarks on some of the principal cases among those of the first four classes in the return, viz., those of the head, face, neck, and chest. I have now the honour to forward observations on a few cases of interest which occurred in the class of abdominal wounds from the same campaign.

The descriptive numerical return of the wounds and injuries furnished with the first section of the report terminated on the 31st of March 1883. Since that date there have been admitted seven invalids at Netley for the results of wounds and injuries which had been received in the Egyptian campaign of 1882. The classes of the wounds, and the numbers under each class, have been as follows:—Class 3, gunshot wounds of the neck, 1; class 5, of the abdomen, 2, one of these being a re-admission; class 8, of the upper extremity, 1; class 9, of the lower extremity, 3; total, 7.

The number previously tabulated was 196, so that with the seven just noted the total number admitted at Netley for wounds received during the Egyptian campaign of 1882 has been 203.

Class 5.—Wounds of the Abdomen.

Very few wounds and injuries of class 5, wounds of the abdomen, were admitted at Netley. This is what generally happens with wounds in this region, so far as the cases that survive to be admitted into the invalid or fixed hospitals are concerned. Out of the total 203 cases admitted from the Egyptian campaign the patients suffering from the effects of wounds of the abdomen were only four in number, or in a ratio of about 2 per cent. of the whole.

The classified return descriptive of the wounds and injuries received during the Indian Mutiny among the patients admitted into the Invalid Hospital at Fort Pitt between April 1858 and December 1862, printed in the 4th volume of the Army Medical Reports, page 467, shows that out of a total of 935 cases then admitted, the number of injuries in the region of the abdomen was only nine, or less than 1 per cent. The proportion computed by Dr. Otis, from an immense number of observations collected from the War of the Rebellion in the United States, of wounds of abdomen which came under treatment in the military hospitals, including the hospitals on the field as well as the fixed hospitals, during the war was only from 3 to 4 per cent. Only one invalid has been admitted at Netley from the recent military operations in the Soudan for the effects of an abdominal wound.

From the probably large numbers in which these injuries occur in time of war, owing to the extensive surface exposed by the region of the abdomen, the relatively small number of cases that are brought into the military hospitals may be accepted as a sufficient proof that the great majority of them are very speedily fatal on the field of action itself.

Although the number of admissions tabulated at Netley for injuries of the abdomen amounted to five in number, including the two which occurred subsequently to the 31st March 1883, there were only four patients treated, one patient having been admitted twice during the period under notice. The cases of these four patients all possessed some remarkable features of interest. In two of the cases the cavity of the abdomen was penetrated, and one was attended by a disabling injury of the ilium and some adjoining nerve branches. Of the four patients one was discharged to duty, two were discharged from the service, and one died. Of the two men discharged from further service, one had been previously discharged from Netley to his regiment, but had to be re-admitted owing to the effects of his injuries being found to disable him for performing his duties. The second man discharged from further service at Netley had been previously treated at Aldershot, and had also been discharged from that station to duty, but was found unable to perform it.

The following are detailed descriptions of the cases of the four patients referred to:--

Case of Private T. Langley.—The case under Order 1 was a flesh wound of the abdomen without penetration of the cavity. It was apparently only prevented from becoming a penetrating one by the intervention of the waist-belt which was cut by the bullet in its passage. The patient, Private T. Langley, a man of the Army Reserve, was struck when distant about 400 yards from the intrenchments at Tel-el-Kebir, toward which he was advancing at the time he was hit. The projectile inflicted a superficial wound in the walls of the abdomen about 2½ inches above the umbilicus, and half-an-inch to the right of the mesial line. The bullet probably fell out from the opening it had made when his uniform was removed, as it was not found at the examination of the wound, and there were no indications of it having lodged more deeply. The injury at the time of its infliction was at once followed by a great amount of collapse, probably from the epigastric contusion being continued to the solar plexus and its connexions, and thus producing constitutional effects similar in nature, though less in degree, to the fatal results which have sometimes followed blows in the same situation at the upper part of the abdomen. This condition of collapse continued for a considerable time, according to the man's statement, so that when picked up he was still in such a prostrate condition that he had to be carried to the field hospital, a distance of about three miles. The wound was not quite healed when he arrived at Netley on the 30th September, but shortly became closed under ordinary treatment. After it was healed the cicatrix moved, under pressure of the fingers, unconnectedly with the sheath of the rectus abdominis over which it was situated, showing that the sheath itself had not been traversed by the bullet. No permanent ill effects resulted from the wound, and the man was discharged to duty.

Case of Private W. Reid. — The wound under Order 2, also a non-penetrating one, but with lesion of the ilium, was a severe one, and presents several points of practical interest. The following is the history of the case.

Private W. Reid, age 25 years, No. 1,581, Gordon Highlanders, of three years' service, was wounded at the battle of Tel-el-Kebir in the abdomen. He had crossed the main ditch and had advanced about 200 yards within the enemy's works, and was in the act of firing when he was himself hit. He was exposed at the time to a cross fire, but the bullet apparently came from the left flank of the spot where he was engaged. He fell directly he was struck, but did not lose consciousness, though after a time he felt faint from the loss of blood which, according to his statement, was very profuse. After lying on the ground, he thinks, about an hour, he was bandaged and carried by bearers of the Army Hospital Corps to some Egyptian tents which were not far off. Here he was seen by a surgeon and his wounds were dressed more fully. Lint and carbolised oil with iodoform were the dressings chiefly employed. He remained in the tent that night, and the following day was conveyed on a mule litter to the canal, whence he was sent by boat to Kassassin. After two days' stay at this station he went by railway to Ismailia, and from there embarked on board the "Orontes" for England. He was admitted at Netley on the 3rd October 1882. The wounds were followed by partial retention of urine for two or three days, and attempts at micturition caused great pain. There was no blood with the urine, nor was there any indication of injury to the intestines. The patient says that the right testicle became slightly swollen and painful, but that four or five days afterwards this swelling and tenderness had disappeared of its own accord.

Two wounds were inflicted, one being the wound of entrance, the other that of exit, of the bullet.

The *wound of entrance*, as shown by the cicatrix, was about 1 inch above Poupart's ligament on the right side, about 2½ inches from the anterior superior spinous process of the ilium, and a little above a line drawn between that process and the crest of the pubis. The cicatrix is rather oval in figure, about 1 inch in its long diameter, puckered, and shows the rasing character of the wound. At its external aspect the finger can still be inserted into the opening made by the missile in the fascia.

The cicatrix of the *wound of exit* is on the outer aspect of the hip, 4½ inches away and nearly in a straight line outwards, from the wound of entrance. It is more elongated in shape than the wound of entrance, and is puckered from the margin toward a central line along the middle of the scar. Its size is 1½ inch by ½ inch. Its position is about 2½ inches behind and below the anterior superior spinous process, and 3½ inches below the crest of the right ilium.

The bullet apparently having entered above and a little external to the site of the internal abdominal ring, passed outwards and inwards toward the iliac fossa, through the muscular layers, without wounding any of the structures of the spermatic cord or penetrating the peritoneal cavity. It then forced its way through the ilium, at a point between the anterior superior spine and the anterior inferior spine of the bone, and finally made its exit at the spot already above described. Some small fragments appear to have been completely detached from the bone, while one portion was bent downwards and outwards towards a spot a little above the acetabulum, and this portion from still retaining a certain amount of connexion with the main portion preserved its vitality. Three fragments of bone were removed from the wound of exit about the sixth week after the injury, and from that time the process of healing of the track and of the exit opening followed uninterruptedly. The wound of entrance had become closed about three weeks previously. There still remains an abnormal bony prominence of considerable size above the acetabulum, firmly fixed, but fortunately not in a position to interfere with the movements of the head of the femur in the articulation. This prominence near the site of fracture is the depressed fragment before mentioned, but enlarged and altered in shape by the periosteal inflammatory action set up in the neighbourhood of the wound through the ilium. The configuration of the whole portion of the pelvis near the brim between the superior and inferior anterior spinous processes is materially changed owing to the bony swelling at this part.

About the middle of December both wounds were soundly healed and the man's general health had become materially improved. He was very anxious to continue serving, and on the 9th January 1883 was discharged from Netley and sent to his depôt at Aberdeen as "Fit to try duty." The movements of the hip-joint were then free. The man stated that he felt no particular pain at the seat of injury, and that little more than a sense of weakness remained which was gradually passing away.

On the 25th April 1883 the patient was inspected by the Medical Officer in charge of the depôt, and was sent with a draft to his regiment in Egypt. On joining, he found himself unable to march owing to general weakness and trembling of the right lower extremity, and on this account, as well as of various neuralgic symptoms which he complained of about the thigh, he was sent first to light duty and subsequently to the citadel hospital at Cairo. Not long afterwards, on the 4th June 1883, he was again invalided to England. He was re-admitted at Netley on the 26th June 1883.

On re-admission the patient stated that he had never fully recovered from the sense of weakness of the limb in walking, and that he had been repeatedly from time to time troubled with shooting pains in the groin and down the outside of the thigh. He also referred to there being numbness about the outer and anterior aspect of the thigh, and the diminished sensibility complained of, when tested by the æsthesiometer, was shown to be considerable in amount. He further stated that he was troubled by a dull aching pain at the upper part of the thigh when he was in bed, and that he had the same aching sensation, sometimes even worse, when he was walking about. He was under the impression that the bony "lump" had not varied in size since his first discharge from Netley. There was no perceptible muscular wasting on measurement of the right thigh when compared with the thigh on the opposite side. The conclusion come to was that the abnormal bony prominence near the inferior anterior spinous process of the ilium was causing pressure and irritation of the external cutaneous nerve where it passes out beneath Poupart's ligament into the thigh, but that the fibres of this nerve had been also probably injured by the bullet, or by some of the bone fragments detached from the ilium at the site of injury, at the time he first received his wound. On cross examination the man admitted he had never been free from the neuralgic symptoms complained of ever since he was first hit. The area of numbness and pain described by the patient quite agreed with the distribution of the external cutaneous nerve; at the same time there did not appear to be any signs of the main portion of the anterior crural nerve having been injured.

REMARKS.—The instructive portion of this case is the consideration which it gives rise to, regarding the correctness of the decision, by which the patient was declared fit for general duty and sent on active service. There can be little doubt in this instance that the patient, being very desirous to rejoin his corps, made as light as possible of the effects of the wound while he was at Netley, and that only after having actually failed in the attempts to do the duties which he was called upon to do with his regiment did he state fully the amount of weakness of the limb or that of the sensory uneasiness which the wound had left behind it. There was some ground for thinking that the bony enlargement below Poupart's ligament might have increased in size after the patient left Netley, and that his symptoms had become aggravated in consequence of increased stretching and pressure on the nerve chiefly affected. The history under any circumstances affords a lesson as to the great care and thorough investigation required before determining a patient to be fit for active service after a severe wound, in any case where complete recovery is not fully established by proof demonstrable to the examining surgeon. This lesson is further enforced by a study of the circumstances of the case which follows. It is not only the cost of sending a man out to a foreign station who on his arrival proves incompetent for service, as well as the cost of his return to England, that have to be taken into account, but, from a military point of view, the fact that the man takes the places of an effective soldier and throws extra labour on the other men of the regiment to which he belongs is also not without importance.

Case of Private J. Melvin.—The next case of abdominal wound, complicated with a wound of intestine, in all probability of the colon, followed by stercoral fistula, and such recovery that in less than seven months he was medically inspected and reported fit to rejoin his regiment in Egypt, presents many features of surgical interest.

History.—Private Jas. Melvin, age 23, 1st Battalion Gordon Highlanders, a tailor by trade before enlistment, of 2½ years' service, was wounded at the action of Tel-el-Kebir, after entering the enemy's works. The regiment, which was in line, had fired a volley into an earthwork close by and a little to its right front, and was just making a rush for charging when Private Melvin was shot by a bullet through the lower part of the abdomen and fell. His body was bent slightly forwards at the time he was hit. He felt a severe pain, chiefly in his left side, higher up than where he found his wound to be when he afterwards saw it. While on the ground he was able to loosen his belt, and he then lay as quiet as he could from fear of being struck again. When the fort was silenced he tried to get up, but could not; sensation and power in the left side and lower extremity were gone. After lying a considerable time, upwards of an hour, he believes he was picked up by some of the regimental bandsmen, and was carried by them on a stretcher into one of the Egyptian tents. A good deal of blood had been lost, and he was very faint. The wound was now examined and bandaged The shot had passed completely through and escaped, leaving two wounds, one at the lower part of the belly on the left side, the other wound on the outer aspect of the left hip. After a short rest he was placed in a litter on horseback and carried to the field hospital near the canal, when some opiate was given to him and the wound redressed. He was taken to Kassassin by boat the same day, and the next day went on by train to Ismailia, where he arrived on the evening of the 14th. The movement on the horse litter caused much pain, but the journey on the boat was very easy. The lateral shaking and the jolting on the railway caused about the same amount of pain across the belly in the neighbourhood of the wound as the horse litter had previously led to. He remained eight or nine days at Ismailia, during part of which time fœces escaped by the anterior wound. He was then shipped on board the "Lusitania" for England. On arrival at Portsmouth he was carried on a stretcher into the ambulance railway carriage, and while still on the stretcher placed in one of the berths of the conveyance. He had a very easy journey to Aldershot so far as the railway journey was concerned. From the railway he was carried to hospital in an ambulance waggon. The wounds progressed favourably, and he left the hospital at Aldershot in January 1883, and joined his depôt. He remained at the depôt for a few days before going on sick furlough. He was still lame from loss of power and from deficiency of proper sensation in the left leg, but both wounds were closed. He was over two months on furlough at Elgin, in the north of Scotland, and during this time he improved greatly in general health, but only partially recovered power and sensation in the affected limb. At the expiration of his furlough he rejoined his depôt, and after a time was ordered to proceed with a draft of his regiment to Egypt. During all this time he had never been free from uneasiness in the neighbourhood of the wound, and any heavy exertion like coal-fatigue at the depôt greatly increased the pain. It was, however, thought the change to the warm climate might be beneficial to him, and he joined his regiment at Cairo about the beginning of May. It was soon found that he was unable to march and to go through the usual drills and parades. He was then put in the tailor's shop in the expectation that he would be able to work at his original trade, but the continued cross-legged position caused pain at the inner and upper part of the thigh, and he found he could not bear the pressure of the ironing board. He was in consequence invalided from Cairo on the 9th of June, and having embarked at Alexandria on the troopship "Himalaya" on the 10th of June 1883, he arrived at Netley on the 26th of the same month.

The Fæcal Fistula and its progress.—The patient states that it was on the second day after his arrival at the Ismailia Hospital, being the third day after the receipt of the wound, that he first noticed a small quantity of fœces on the dressing which had been applied to the anterior opening. Flatus also escaped when the dressing was removed. There had been no natural movement of the bowels up to this time. Some urine had been passed, but with so much pain and difficulty that a catheter was passed and left in the bladder. The catheter was retained for three or four days, and after that time the urine passed in the natural way, but micturition still caused much pain in the vesical region. Natural defœcation took place a few days after he had been in hospital, but this did not prevent the continuation of the escape of fœces by the anterior wound. On the contrary, the escape of fœculent matter gradually increased in quantity during the time he was at Ismailia. The action of the bowels when he had to use the bed pan was accompanied with great pain. After he was moved on board ship the amount of fœculent matter escaping by the wound still increased, until, about the end of September, nearly a pint in quantity escaped in the course of the 24 hours. After this date the quantity gradually lessened, and towards the latter part of October it had nearly stopped altogether. He now on one occasion got out of bed to use the close-stool, this being the first time he had done so since the fœculent matter had been discharged from the wound, but the action of defœcation in the sitting position at once led to an increase in the quantity passing by the artificial anus. A return to the use of the bed pan in the recumbent position was enjoined, and on this being done the quantity again became lessened. The fœcal discharge stopped altogether at the end of October, since which date it has not re-appeared. No fœcal matter ever escaped by the opening near the trochanter.

During the voyage in the "Lusitania" the patient suffered from great pain and tenderness in the abdomen, increased on any pressure, even that of the bed clothes. During the first period there was considerable fever, but this symptom gradually lessened as the voyage proceeded. On one occasion an abscess of considerable size formed in the abdominal wall near the anterior wound, and a considerable quantity of fœtid pus was evacuated. A similar collection of pus was found on the patient's arrival at Aldershot, and the matter was removed by the anterior wound. The abscess was syringed out by carbolic solution, a drainage tube inserted, and under this treatment the purulent discharges gradually decreased and the anterior opening became firmly healed at the end of December. The posterior wound became closed about a week after the patient's arrival at Aldershot.

On both wounds becoming closed the patient was allowed to walk about, and from this date a gradual improvement took place as regarded the thickening and uneasiness about the abdominal wound. For a long time, however, the act of defœcation continued to be accompanied by severe pain across the left iliac region, and the pain only became moderated while he was on furlough at Elgin. There was not much improvement, however, in the condition of the left lower extremity as regards loss of sensation and power.

Site and direction of Wound.—The following are the positions of the cicatrices of the two openings made by the bullet. As there was a cross fire going on at the time the patient was hit it is uncertain which of the wounds was the wound of entrance, and which that of exit of the projectile. The cicatrix in front is evidently the result of a bullet having passed through the anterior wall of the abdomen very obliquely. This cicatrix, which is oval in shape, its long axis being horizontal, is three fourths of an inch long by a little over one fourth of an inch broad. It is situated 1½ inches above the pubis, 1 inch to the left of the median line, and 4 inches below the umbilicus. It is shelving as regards depth, being quite superficial at the inner border towards the median line, and becoming deeper as it proceeds toward the external aspect. The finger tip can be passed into the opening through the fascia and deeper tissues of the abdominal wall at the outer extreme end of the cicatrix, and its connexion with cicatricial tissue still deeper in the iliac region can be plainly traced. On passing the finger into the inguinal canal, and approximating the parts, it is believed that the gut can be felt drawn towards the cicatricial band. It is at this point, the patient states, passing flatus is felt, and when he is at stool that a certain amount of uneasiness is experienced, especially if the bowels are costive.

The posterior cicatrix, on the other hand, is that of a healed opening through which a bullet has passed apex forwards in a direct line. The cicatrix is circular in outline, a little under half-an-inch in diameter, slightly puckered, but not depressed. It is situated 1½ inches above the most projecting part of the left trochanter, and 4½ inches below the anterior superior spinous process of the ilium.

The bullet, whether it entered in front or above the trochanter, has evidently gone through the left iliac fossa, wounding probably the sigmoid flexure of the colon, has traversed some of the abductor muscles of the thigh, passed between the femur and the flexor muscles at the upper part of the thigh, and in this situation has injured the anterior crural nerve high up in its course.

Nerve Injury.—The injury to the left anterior crural nerve is indicated by wasting and loss of muscular power of the thigh, as well as by abnormal sensations and diminished temperature of those parts of the surface of the limb to which its branches are distributed. The circumference of the left thigh when measured is everywhere 1 inch less than the corresponding parts of the right thigh, but the calves of the two legs correspond precisely in their dimensions. Loss of sensibility, and occasional tingling sensations, especially after walking, over the front and inner parts of the thigh, on the inner side of the knee, inner border of the leg and ankle, and inner edge of the foot are complained of by the patient, who, without knowing it, describes the distribution of the cutaneous branches of the nerve which the bullet had injured. Deficient temperature of the foot and limb is manifest to the hand of the examiner on comparing them with the corresponding parts of the sound limb.

Remarks on the Case.—The man states he is not aware of there having been any improvement for several months past in the sensibility of the affected parts of the limb, and considering the time which has elapsed it seems doubtful whether normal sensibility of the surface, or full muscular nutrition of the thigh, will ever be completely regained. It is, however, still too early to express any definite opinion on the subject.

A more important point as regards the man's future welfare is the question of the permanence of the cure of the stercoral fistula in the iliac region. It is well known that in many instances fœcal fistulæ have reopened after they have been supposed to be permanently healed. A man of the regiment I served with in the Crimea was under my care for fœcal fistula after a bullet wound, and was subsequently in 1856 discharged from the Brompton Hospital at Chatham with the external fistulous opening closed, and his case was reported as one of recovery. But up to the time of the man's death, which occurred in 1859, the wound on various occasions reopened and permitted the escape of fœcal discharges. A case similar in some respects occurred at Lucknow, and an account of it up to the time the patient left India has been reported by Dr. de Chaumont in the Edinburgh Medical Journal of 1858. In this instance also a cure was supposed to have been effected, so that the man was discharged to duty at his depôt. A few months afterwards he was inadvertently put to do shot drill, and this caused the wound to reopen and the fœcal discharge to be re-established. He was subsequently invalided on this account from the service. The opportunity of tracing the histories of patients for some time after their discharge from military duty that has been afforded to the surgeons of the United States Army has, however, shown that in a certain proportion of cases fœcal fistulæ, consequent on wounds of intestine by gunshot, do become permanently healed. Dr. Otis, in the surgical history of the War of the Rebellion, has collected 59 cases of complete or partial recovery after shot wounds of the large intestine; and he states that 50 of this number were reported as cured after various intervals of time, viz.:—17 within one month, 28 within one year, five at periods over one year, but within four years. In nine cases the stercoral fistulæ were persistent.

I have a strong conviction that the cure will remain permanent in the case of Private Melvin. The situation and direction of the wound appear to me to be favourable for this result, and although there is still some tenderness on pressure in the iliac region where the cicatricial connexions between the site of the superficial wound and the deeper parts can be felt, and although some uneasiness still remains on defœcation, the gradual diminution in these symptoms, notwithstanding all the man has gone through in returning to Egypt and in attempts to do duty while there, hold out a fair promise that in time they will disappear altogether.

The man is fully aware of the hazard that would attend any sudden or violent strain or exertion involving the region which has been injured. I have seen this man since his discharge, in August 1883 at Elgin, and he was then well in general health and the parts concerned in the wound were continuing quite firm and sound. There was no improvement in regard to the effects of the nerve lesion.

Case of Driver James Madigan.—Perforation of the diaphragm and stomach by a bullet which entered at the lower part of the left side of the chest, together with wounds of the liver, left kidney, and spleen. Death on the 60th day after the injuries.

The following is a history of this remarkable case:—

Driver James Madigan, Royal Artillery, age 23, of four years' service, was admitted into the Royal Victoria Hospital, Netley, on October 3rd, 1882, for a gunshot wound received at the assault of Tel-el-Kebir on the 13th of September 1882. The marks of the wound showed that a missile had penetrated the left side of the chest between the sixth and seventh ribs, about 2 inches below the nipple, and 4 inches outwards from the middle of the sternum; and that it had effected its exit behind, below the angle of the left scapula, at a point 3½ inches from the spinal column, between the eleventh and twelfth ribs.

The following history was obtained from the patient; no documents arrived with him. He was with his battery to the right of the enemy's position towards which the battery was trotting, and from which he was distant between 1,000 and 1,500 yards, when he felt himself struck in the chest. He did not fall, but jumped off his horse and lay down on the ground. He was seen at once by the surgeon attached to the battery, and his wounds were attended to and bandaged by him. After lying on the ground as he supposed about an hour he was carried to the field hospital, a distance of about three miles. While on the ground he did not lose much blood, nor was the wound accompanied with acute pain, but he had a constant dull aching sensation in left side, accompanied by a general sense of faintness and debility. Shortly after his arrival at the field-hospital he became sick, and he then vomited what from his description was obviously a considerable quantity of coagulated blood. He had no cough at the time. The local pain was relieved after the vomiting ceased, and he felt generally easier.

The wounds were not re-dressed at the hospital. He had a little brandy to relieve his faintness and feeling of sickness, and after a time was carried in a dhooley to the canal and sent by boat to Kassassin. After remaining a day at Kassassin he was removed by train to the hospital at Ismailia, and from it was transferred on the 21st of September to H.M.S. "Orontes." The "Orontes" reached England on the 2nd of October, and the patient was next day brought by train to Netley.

While in Egypt iodoform dressing was applied to the wounds; after arrival on the "Orontes" they were dressed with lint steeped in carbolic acid lotion. When he had been about a week on board the posterior wound became closed, and no further dressing was applied to it. The wound of entrance was firmly cicatrized before he reached England. His general health remained fairly good during the whole of the voyage.

On the second day after the patient's arrival at Netley he complained of uneasiness at the back of the chest, and on examination a swelling which gave evidence of fluid beneath was found near the site of the wound of exit. The next morning the cicatrix of the exit wound was found to have spontaneously given way, and about a tablespoonful of healthy pus had escaped. The opening was enlarged by bistoury to admit of the pus cavity being syringed out, and a drainage tube was inserted. The discharge continued, and no untoward symptoms occurred until the 15th of October, when the patient complained of general severe pain in the chest. At the same time his evening temperature rose to 100·2° F. A large poultice was applied over the chest, and renewed at intervals of about three or four hours. Under this treatment the pain abated, but notwithstanding, on the following morning the temperature rose as high as 104·2° F. Scarcely any movement of the left side of the chest was noticeable, and only very faint and distant respiratory sounds could be heard anywhere over this side on auscultation. Dulness on percussion was very marked over the lower part of the left lung. At the same time there was great tympanitic distension of the abdomen, and the flatulence connected with it caused much distress to the patient. Turpentine enemata afforded temporary relief, and a mixture containing the tincture of assafœtida was also very efficacious in allaying the pain which the distension gave rise to; but in spite of these remedies and attention to diet the flatulence, distension of his abdomen, and a good deal of dyspnœa continued to be urgent symptoms. The dyspnœa and a short hacking cough were especially troublesome on the 22nd October, when some sputum slightly purulent, and very offensive in odour, was expectorated. About 9 a.m. a flow of dark coloured, extremely offensive pus, apparently caused by the patient's efforts in coughing, suddenly took place from the posterior wound and soaked through the dressings and bed clothes. Nearly a pint of this offensive fluid, mixed with many shreds of lymph, was also caught in a porringer, and at the same time some tough tubular pyogenic membrane, almost black in colour, 4 inches in length and nearly half-an-inch in breadth, was drawn away from the opening. The cough abated after the escape of this discharge, and the temperature became lower. On trying to pass a probe or canula between the ribs into the abscess cavity nothing more could be found than a rather narrow, sinuslike, track, having a very oblique upward direction.

On the evening of the 23rd the temperature again rose and continued ranging between 101·5° and nearly 104° F. up to the 28th of October. On this latter date examination of his chest showed great distension of the superficial thoracic veins, the apex of the heart pulsating between the fourth and fifth ribs on the right side close to the sternum, the left side of the chest almost entirely motionless, the respiratory sounds very faint on this side and exaggerated on the right, with marked carotid pulsation. The right side of the chest was clear and resonant on percussion; on the left side there was general dulness from the base up to the angle of the scapula. An attempt was made to aspirate the chest on the left side in the fifth intercostal space, but only about two ounces of dark offensive purulent fluid were extracted. In the course of the night following, however, a large escape occurred from the posterior wound, similar to that which had taken place on the 22nd of the month. The discharge was so copious and offensive that it was necessary not only to change the dressings and bed linen, but all the bedding also. This was followed by great sense of relief as regarded the chest symptoms, and a decrease of the general temperature; but the patient complained much of pain about the situation of the liver and stomach. Linseed poultices were applied to relieve it, and small doses of morphia were also administered hypodermically. About 1 p.m. on the 29th, shortly after taking some milk, the patient was seized with severe retching, and he vomited a considerable quantity of dark coagulated blood, mixed with some of the milk which he had swallowed. His pulse at this time was very feeble, 146 per minute, his lips and face bloodless, and the patient exhibited signs of great general exhaustion. Vomiting recurred about an hour later, and about three fourths of a pint of the vomited matters were thought to be blood. Nutrient and stimulant enemata were administered, and he was only allowed to suck ice by the mouth.

From this time there was no recurrence of the hæmorrhage, and his pulse and general condition showed some slight improvement. On the 31st a trocar was inserted by the posterior wound and about a pint and a half of very offensive pus was drawn off. This was followed by an injection of weak 2 per cent. carbolic lotion, heated to 98° F. The abscess cavity was then washed out twice, and the escaping fluid became clearer. On the third attempt of a similar kind being made, while the fluid was entering, the patient began to cough, and manifested signs of very urgent dyspnœa. Efforts were made to draw off the injected fluid again, but failed. The patient, who during the operation had been lying partly on his right side, was raised up into a sitting position and much relief followed the change. Most of the fluid escaped spontaneously during the ensuing night, and he became quite easy again. A drainage tube was left in the opening and through this some discharge continued to flow. The nutrient enemata were continued until the 3rd of November, when he was again permitted to take beef tea, and other fluid nourishment by his mouth. The patient, however, who had become very emaciated, gradually grew weaker, his cough became more frequent and troublesome and the expectorated matter gave out the same offensive odour as characterized the discharges from the wound in the back. The flow from this wound-opening was continuous, and on the whole profuse in quantity. On the 6th of the month diarrhœa set in, and this, in addition to the other debilating influences to which he was subjected, gradually reduced the patient to the lowest ebb. He died at 3 a.m. of November the 12th.

EXAMINATION POST-MORTEM.

General observations.—The examination of the body was conducted 56 hours after death. The inspection revealed the existence of lesions which fully explained the symptoms which had been noted during the treatment of the case at Netley.

Exterior of body.—The body, the weight of which was only 84 lbs., was greatly emaciated. The wound of entrance, between the sixth and seventh ribs on the left side of the chest, was quite closed, the thin, nearly circular, cicatrix indicating its situation only presenting a diameter of about half-an-inch. The ribs in front had escaped injury. The wound of exit between the eleventh and twelfth ribs was much enlarged, from ulceration of the soft parts surrounding it.

Chest.—On examining the chest, the left pleural cavity was found to contain nearly two pints of greyish yellow purulent fluid. The pleural lining of the cavity was much thickened, roughened on the surface, and of a blackish colour.

The anterior portion of the left lung was adherent to the wall of the chest about as far as the junction of the ribs with the cartilages, but beyond this distance the lung was free, although much compressed towards the spinal column by the fluid effusion. The lung itself had not been wounded by the projectile in its passage. The right lung exhibited considerable consolidation of its substance, especially of its lower lobe posteriorly, where it appeared to be pneumonic in character. The pleura on the right side had a healthy aspect. There was considerable thickening of tissue between the base of the left lung and the diaphragm. This was especially marked in the neighbourhood of a perforation which had obviously been made by the bullet in the diaphragm, and through which a diaphragmatic hernia had occurred. A probe could not be passed from the abdominal side of the opening in the diaphragm through the thickened tissue into the lung, though the end of the probe closely approached the lung. When a probe was passed inwards through the wound of exit of the bullet it was found to travel upwards between the cardiac end of the stomach and the margin of the spleen, but it could not be passed into the chest cavity.

The heart and aorta were normal in structure, but the heart was pushed over to the right side. There were no signs of pericarditis.

Abdomen.—On examination of the abdomen the diaphragm was found to reach to the level of the fifth rib on both sides of the chest. A little below the situation of the wound of entrance, between the sixth and seventh ribs, in front of the left side of the chest, there was a circular opening in the diaphragm, and through this at the time of the post-mortem examination a portion of omentum protruded upwards into the pleural cavity. There were also some omental adhesions near the opening. In other respects the positions of the abdominal viscera were normal. Towards the cardiac end of the stomach there were two cicatricial marks as if resulting from two small circular wounds of the coats of the organ, both near to each other, but separated by a short interval of sound structure. These appearances were equally obvious on both surfaces of the stomach, the peritoneal and mucous surfaces. They were situated about 2 inches from the entrance of the æsophagus. There was nothing abnormal about the small or large intestines, excepting that the whole of their peritoneal surfaces had a peculiar blackened aspect as if tinged by blacklead. This was equally noticeable on the external peritoneal aspect of the viscera, as it was on the surface of the peritoneum lining the walls of the cavity.

A well-marked notch, with cicatricial loss of substance, was observed on the extreme left margin of the liver. The spleen was firmly adherent to the diaphragm and stomach. At the part where the spleen was in contact with the tissues covering the spinal column there was an orifice admitting the point of the finger, with a rounded margin. This orifice was immediately above the left kidney and corresponded in direction with the direction of the two scars at the cardiac end of the stomach. At the upper portion of the left kidney itself there was a granulating grooved wound about an inch and a half long by half-an-inch wide. The injury had not extended deeper than the cortical substance, but the surrounding portion of the kidney was partially disorganized, and the connective tissue around it of a very dark colour. The granulations were chiefly on the edges of the wound of the kidney.

General remarks.—The situation of the wounds of entrance and exit caused the injury to be regarded as one of the chest, but as the inspection after death sufficiently proved, the chief mischief effected by the projectile in its passage really occurred in the region of the abdomen. The viscera of the chest were untouched, but several of the principal viscera of the abdomen had been subjected to more or less severe lesions.

The track of the bullet, as indicated by the positions of the organs wounded and the situations of the lesions in them, is quite in accordance with what the path of a bullet might be expected to be in the last part of its flight, on striking a man mounted on horseback and facing the enemy, as the patient was at the time he received his injuries. The rifle must have been fired at a considerable elevation for the shot to have reached the distance of the battery, between ten and fifteen hundred yards from the front of the enemy's works. Hence the bullet, travelling with a very arched trajectory, and happening to strike and penetrate the chest in front when approaching the termination of its course, would necessarily continue its passage downwards and backwards in a curved direction. The relative positions of the entrance opening between the fifth and sixth ribs in front and of the exit opening between the eleventh and twelfth ribs behind agree with this course. The bullet having entered at the lower part of the chest and invaded the pleural cavity, but without touching the pericardium or lung, passed through the diaphragm, grooved the edge of the liver, entered and passed through the walls of the stomach at the upper portion of its cardiac extremity, and still pursuing its way backwards and downwards, traversed the tissues between the lower part of the spleen and upper part of the left kidney, inflicting lesions on both organs as it swept by them and finally made its escape between the adjoining eleventh and twelfth ribs at their posterior aspect.

The apparent absence of early signs indicative of the complex injuries done to these important organs, beyond the general shock that immediately followed the wound, and the vomiting and hæmatemesis which occurred after his arrival at the field hospital, are facts well worthy of note. Judging from the conditions of the parts involved in the injury, as observed at the cadaveric inspection, and the course of the early symptoms as far as they could be ascertained, the lesions seem to have been followed speedily by a certain amount of protective inflammation, so that the area of mischief became limited and the escape of matters prevented by effusion of adhesive lymph in the immediate neighbourhood of the wounded structures. The situation of the wounds of the stomach at the upper part of its cardiac extremity was favourable for averting escape of the contents of that organ; but it was questionable to myself whether the lesions were not originally severe contusions of the surface of the stomach, such as might lead to hæmorrhage from the mucous surface into the organ, rather than actual penetration of the stomach and infliction of entrance and exit wounds through its substance. The opinion of Dr. Boileau, however, who conducted the post-mortem examination, and who has had great experience in such observations, was that there had been an actual perforation of the stomach. Whatever may have been the precise nature of the lesions to this organ the favourable condition of the patient, as described by himself, and his improvement in condition during the voyage to England, are very remarkable features under the circumstances.

The extreme gravity of the case, even after his arrival at Netley, can hardly be said to have made itself apparent until about twelve days after his admission, and then there were no sufficient signs of the mischief done to several of the abdominal organs which it was afterwards found had been involved in the injury. The wounds of the kidney, spleen, and liver were not diagnosed, and although there were very urgent symptoms of nausea, dyspepsia, irritability of the stomach, and great and persistent flatulent distension of the abdomen, there was nothing to lead to a suspicion that the stomach or the other organs named had been wounded by the projectile. The symptoms referred to were regarded as sympathetic with the abscesses and pleuritic effusions in the neighbourhood of the stomach. The case is, therefore, instructive, inasmuch as it proves the possibility of sufficiently distinct symptoms being absent, notwithstanding the existence of serious lesions of some of the chief of the abdominal viscera, so that surgeons may remain in ignorance of the true nature and complications of such a wound while under their immediate supervision. Whether an accurate description of the symptoms in the early period of this complicated injury would have thrown a light on its true nature and extent it is not possible now to say.

The condition of the parts exposed to view at the inspection of the body explained one fact, which, at the time of its occurrence, seemed inexplicable, and created a good deal of alarm. As already mentioned in the history of the case, the carbolic acid solution, by which the abscess cavity near the posterior wound was washed out, returned in the usual way after two injections, but disappeared after the following injection and led to a condition of great prostration of the patient. The post-mortem inspection showed how this must have occurred. The fluid, after entering the abscess cavity near the wound of exit, must have found its way through the opening in the diaphragm into the cavity of the chest and so disappeared for a time. The urgent symptoms of dippnœa and exhaustion were somewhat relieved by placing the patient in the upright position and thus taking off some of the pressure from the upper part of the lung. During the night the fluid gradually found a way of escape, and the effects of the injection then disappeared altogether.

An anatomical peculiarity in this patient was that the fourth and fifth ribs on each side of the chest were united to the sternum by one cartilage common to both ribs. This peculiarity had led during life to hesitation in fixing the precise number of the ribs between which the projectile had entered. When the ribs were counted from the front the situation of the wound appeared to differ from the position assigned to it when the numbers of the ribs were counted from the side of the chest or from behind. The difficulty was only explained when the anatomical peculiarity just described was discovered.

APPENDIX No. II.

CASE OF HÆMOPHILIA.

By Surgeon-Major H. O'Brien, M.B.

No. 38,376, Gunner W. J. K., Royal Artillery. Age 20. Service, nine months.

This man, well developed and muscular, was admitted to Station Hospital, Cork, at 4 p.m., on the 16th March 1884, for prolonged epistaxis, which had set in at 10 a.m. the same day.

Condition on Admission.—Patient had evidently lost a large quantity of blood; he was pale, and felt faint, with a very weak and frequent pulse. There was some oozing of blood from anterior nares, which was with difficulty stopped by the application of ice and by perfect rest.

Previous History.—Had been all his life healthy, except that he had been subject from childhood to occasional attacks of bleeding from the nose. These attacks were sometimes prolonged, and caused him temporary weakness, but hitherto he had not felt it necessary to apply for treatment. He stated that he lost at least a quart of blood on the day of his admission.

In November 1883, at Clonmel, he was two weeks in hospital for painful swelling of right knee joint, accompanied by purple discolouration of the surrounding skin, resembling a severe bruise. This attack came on without apparent cause. There was no history of injury or sprain. It was diagnosed as rheumatism, but he had never had this disease before, and no other joint was affected.

Family History.—Father and mother are alive and well. He had three sisters and two brothers; one of the latter died (he states) from "bleeding "into the brain and from the nose." The others are all healthy.

Course of present Disease.

March 16th. Admitted to hospital. Hæmorrhage stopped by ice and rest.

19th. Hæmorrhage recurred; checked somewhat by ice, &c., but as it continued, plugging of anterior and posterior nares was performed. Pulse small and weak; he feels faint. Temperature normal, functions regular. Patient sleeps fairly well, and makes light of his ailment.

21st. Plugs removed and nose syringed with weak Condy's fluid. Bowels regular, appetite fair.

24th. No return of bleeding until 8 a.m. this morning, when he was taking some milk. There is a steady oozing of blood, with formation of loose soft clots. Ice and styptics ineffectual; both nares are again plugged.

March 26th. Plugs removed. Urine examined and found free from albumen, sp. gr. 1,018. Average quantity normal.

30th. In the early morning, as usual, hæmorrhage recurred, brought on this time by sneezing, but was soon stopped by ice. From this date until the 5th April there was occasional slight oozing. Pulse continued weak, 108, and patient became restless at night requiring an opiate to procure sleep. Evening temperature raised 1° to 2°. Bowels regular. He is very weak and anæmic, and suffers from vertigo.

15th. No bleeding since the 5th. He is slowly regaining strength; not so giddy; has been up for four hours daily. Temperature normal; appetite fair.

17th. Slight trickling of dark blood from posterior nares, checked by sucking ice and by styptics. This recurred on the 18th, but soon ceased.

20th. Hæmatemesis to about 8 oz. occurred in the evening, the blood being very dark, like coffee grounds, and mixed with food. Vomiting of blood recurred on the morning of the 21st, followed by great exhaustion. In the evening slight epistaxis again set in, and continued for some hours. Patient is in a dangerous state from continued loss of blood, and vomiting. His entire body is quite blanched; he is restless at night. Pulse 124, very weak. Morning temperature, 99°; evening, 99·2°.

April 22nd. On this day and the three following days vomiting of food occurred.

On the 24th he vomited a blood clot. Complains of slight epigastric pain.

May 2nd. Has had no hæmorrhage since the 24th ultimo; improving slowly. On the 3rd, 6th, and 7th, slight epistaxis, increasing considerably on the 8th, but the usual remedies stopped it. Temperature, 99·6°.

On 9th and 10th slight oozing occurred at intervals. At 11.30 p.m. on the 10th he was very restless, tossing about in bed, and slightly delirious. Pulse scarcely perceptible. Temperature, a little above normal.

11th. Passed a very bad, restless night; is now rational, but very prostrate. His exhaustion and restlessness increased during the afternoon, and he died quietly at 5 p.m.

Treatment.—During the first month liquid ext. of ergot, gallic acid, tinct. ferri perchlor. and dialized iron were administered at various times without much apparent benefit. Opium in small doses was found most useful to allay restlessness. Arsenic was given in the intervals between the attacks. Plugging the nostrils and ice gave temporary relief. During the last three weeks gallic acid and opium were chiefly employed in checking the hæmorrhage and procuring rest. A preparation of hammamelis verginica was tried without effect. Ice applied externally and sucked in the mouth gave great relief.

Post-mortem Examination.—Nineteen hours after death. Body well nourished, and containing a large amount of fat. On section all the tissues of the body were found remarkably bloodless, and the smaller blood vessels appeared to have very thin walls.

Head.—Brain, 3 lbs. 4 oz.; dura mater adherent to edges of longitudinal sinus; on separating it some lymph of long standing was found adhering to pia mater. Sinuses of skull were remarkably empty, and lateral ventricles contained little fluid. Brain healthy, but anæmic. Bîchâts section of skull was made and posterior nares, tonsils, frontal sinuses, all were found normal.

Thorax.—Slight hypostatic congestion of both pulmonary bases. Heart, 9½ oz.; pericardium contained rather more serum than normal; right ventricle slightly dilated, walls thin; cavities of heart empty. All the abdominal organs were healthy. The right knee was examined and found perfectly healthy.

Remarks.—The diagnosis of hæmophilia was made soon after admission, and confirmed by the family and previous history of the case. The painful effusion into the knee joint which occurred last November corresponds exactly to the articular affection common in this disease. The course of the disease, but little influenced by treatment, the want of rallying power in the patient, even during the intervals between the attacks, and the absence of other disease at the post-mortem examination, all tended to render the diagnosis still more certain.

For many of the above notes I am indebted to Surgeon G. Nelis, who had the immediate charge of the case.

APPENDIX No. III.

SURGICAL REPORT OF No. 2 DIVISION, VICTORIA HOSPITAL, SUEZ.

By SURGEON-MAJOR C. H. Y. GODWIN, Medical Staff, dated 5th May 1884.

The Victoria Hospital at Suez, opened for the reception of the sick and wounded from the Expedition to the Soudan, received its first batch of 141 wounded men on the 9th March 1884 from H.M.S. "Jumna."

The hospital was divided into two divisions, No. 1 of which fell to Surgeon-Major Churchill's charge, No. 2 to myself, and associated with me were Surgeons Mitchell and Bond.

When admitting the wounded I had told them off alternately to the divisions, and, of course, afterwards we were interested in finding what had come to our side of the hospital, and we had also much to do in making a further selection of cases that were fit to travel on to Cairo. This was necessary because another engagement was daily expected, and we were obliged to provide accommodation for the newly wounded.

As many as could travel without risk were despatched by the morning train on the 11th March to Cairo, each man being furnished with food for the day, a bottle of beer and some oranges, and his water-bottle filled with cold tea.

Thus out of 53 wounded men admitted into No. 2 Division on the evening of the 9th March, 20 were sent to Cairo on the morning of the 11th, and 25 more on the morning of the 17th, leaving only eight seriously wounded behind.

On the 12th March the severely contested fight of Tamasi took place at a distance of 18 miles from the sea. The wounded were carried down on stretchers in two days, placed on board H.M.S. "Jumna," and brought to Suez by the 20th March.

Of this party 63 came into No. 2 Division, of whom 18 were sent on to Cairo the next day. From the opening of the hospital up to the present time (24th April) 169 cases have passed through the division, 153 of which came direct from the seat of war, and comprised 104 wounded and 49 sick.

The character of the wounds generally was slight, owing probably to the primitive nature of the weapons with which the brave enemy had been armed, and though there were a certain number of injuries due to bullet and shell, yet a considerable number were simply flesh wounds caused by spears and swords. There were also some simple contusions caused by a short hard slightly curved stick used with great effect by the Soudanese warriors.

In my division I noted amongst the non-commissioned officers and men :—

7 spear and sword wounds of the back.
9 ,, ,, ,, shoulder.
1 ,, ,, ,, left ear.
7 ,, ,, ,, scalp.
3 ,, ,, ,, elbow.
2 ,, ,, ,, thigh.
5 ,, ,, ,, forearm.
1 ,, ,, ,, axilla.
2 ,, ,, ,, neck.
2 ,, ,, ,, side.
2 ,, ,, ,, cheek.
2 ,, ,, ,, leg.
1 bayonet wound of buttock.
1 ,, ,, back.

Bullet Wounds.

5	of the	arm.
1	,,	hip.
7	,,	fingers and hands.
3	,,	feet.
3	,,	forearm.
2	,,	buttock.
3	,,	head.
4	,,	elbow.
12	,,	thigh.
2	,,	breast.
4	,,	leg.
1	,,	cheek.
2	,,	neck.
2	,,	shoulder.

Of the sword and spear wounds it may be stated that in most cases they were simply flesh wounds which healed up without any trouble, but in some cases very severe wounds were the result leading on to secondary hæmorrhage, requiring operative interference and the deligation of large arteries.

Spear wounds of the shoulder, where the spear seems to have passed deeply in without actually wounding the joint, have led to large suppurating cavities leading in under the pectoral and scapular muscles, which have needed much management to secure a proper drainage and outlet for the pus, which seemed inclined to burrow everywhere.

A spear wound of the chest needs special notice.

Lieut.-Colonel B——, 19th Hussars, aged 45 years, received two wounds from spears, one through left forearm between the bones, a simple flesh wound, and another which entered between the eighth and ninth ribs of the left side slightly anterior to the axillary line. A protrusion of viscera followed.

On admission on the 9th March the wound of the forearm simply presented the appearance of two granulating ulcers on either side of the forearm. The wound, however, of the chest had a granulating fleshy tumour about the size of a flattened mandarin orange connected with the parts inside by a neck about the size of a man's thumb. After a little observation it was clear that the fleshy mass was a piece of lung, the neck was adherent to the surrounding skin, and as the lung structure appeared to be destroyed, it was thought that it would be better to leave the tumour rather than to return it into the cavity of the thorax, when possibly it could only act as a foreign body. It was dressed with carbolized oil and iodoform, and it gradually became firmer, smaller, and seemed inclined to cicatrize over, if it did not waste away; as it gave every evidence of doing.

April 28th. I have again seen this officer, and find the lung has entirely receded within the chest, the skin has healed over, a distinct indentation can be felt at the lower border of the eighth rib due to the spear, and through this the lung protrudes during expiration, and recedes entirely during inspiration. At the time of the receipt of the wound attempts to return the lung protrusion were attended with smart hæmorrhage. The intercostal artery was probably injured, and it was this vessel that bled at the time and was eventually controlled by the pressure of the protruding lung.

The wounds causing secondary hæmorrhage I propose to take in one group.

One interesting case of a fracture with a wound and not a compound fracture came under my notice.

Private T——, York and Lancaster Regiment, was struck on the left upper arm, just below the insertion of the deltoid muscle, by a thrown spear. It inflicted a slight flesh wound, but the humerus was fractured obliquely in three pieces. He suffered very greatly in being carried down the 18 miles to the coast, and on arrival at Suez it was a matter of some anxiety as to whether the skin could be saved from perforation. The wound did not communicate with the fracture but the pointed ends of the bone were caught up in the muscles, the soft parts felt like a jelly, and the skin in several places was thin and tender. By rest in bed and absolute immobility the arm recovered itself and a fair repair has taken place. Had the skin given way I believe, from the state of internal injury, the case would have ended in amputation.

A case of multiple sword wounds was that of Trumpeter A. F——, 19th Hussars, aged 23, who, at the battle of El-Teb, when trying to defend Colonel B——, received some sixteen wounds, several of which were on the head and face. Those on the head severed the bones, and the occiput was cut and broken into fragments, a large piece of both tables was driven into the substance of the brain. In addition there were several severe wounds on his neck, both shoulders, arms, and hands. His intellect was clear and bright up to the last. All loose pieces of bone were removed, but, as there was no symptom indicating pressure, I did not proceed to remove the depressed fragment, which was large and needed a certain amount of trephining. On the 19th March, however, some symptoms of trismus showing themselves, he was placed under chloroform and I removed the depressed bone and searched for other pieces. The tetanus extended and he sank and died on the 25th. A post-mortem examination showed that pieces of the internal plates of both frontal and parietal bones had been driven deeply into the substance of the brain and were the centres of abscess cavities, but the external plates over both these places gave no indication of the injury beyond a line of linear fracture running through. As before observed, his intellect was quite clear up to the very last.

Two very severe contusions of the abdomen are worthy of notice.

Captain W——, Royal Highlanders, age 37, when in the saddle at the battle of El-Teb had his stout leather field glass case strapped round his waist, so that it hung just in front of his abdomen above the pommel of the saddle, a case shot struck it, crushed it, and gave him a severe internal contusion. He suffered from great strangury and difficulty in getting about, so that he was sent back in the "Jumna" for recovery. On admission, the note says, he lies on the back with the knees drawn up, can feel the urine drop into the bladder from the ureters, has to micturate immediately if he stands up, and cannot bear any pressure over the hypogastrium. The walls of the bladder were no doubt severely contused, but with rest and time repair is taking place.

Private B——, Army Hospital Corps, at the battle of Tamasi on 12th March was knocked down by a horse which fell upon him, the haunch of the horse coming upon his abdomen. He states that he vomited blood and passed it with his urine and by the bowels afterwards. He complained of great tenderness on the left side of umbilicus and could not straighten himself when standing up, but rest and time did him good and he is now quite convalescent.

Of the gunshot and bullet injuries more can be said, and the cases assume a severer character, and no wonder, as here we have those injuries to the bones which are followed by such severe results. The experience, however, of this campaign impresses the importance of not interfering with wounds produced by rifle bullets in the soft tissues, unless there is some good reason in a particular case to make an examination desirable. But when it is presumable that the rifle ball has simply passed through the soft parts, and the edges of the wounds of entrance and exit fall together, they should simply be covered with an antiseptic dressing and a good bandage applied, and no probing, washing tube inserting, or other meddlesome interference should be permitted. The internal track heals, the wounds remain open as small granulating sores giving exit to some slight discharge but no sloughs, and eventually when the track has healed the wounds cicatrize over. I cannot say that I have seen a bullet track through a limb heal by first intention, as Dr. Blair Brown states he has in South Africa, but this silent granulating process in an aseptic wound I have repeatedly seen. Such a course I think could not take place with wounds caused by round bullets travelling comparatively slowly, but a small rifle bullet seems to do very little damage in its passage, provided, of course, that it is not ragged before it enters the tissues, or, as Esmarch explains it, a "rifle ball "passes through so swiftly that it does not carry in any septic matter."

If on the other hand it is reasonable to suppose that clothing has been carried in, or the bone injured, or a joint laid open, it is then desirable to thoroughly explore the wound and decide upon the course of action. Here, after such examination, a drainage tube is necessary, as well as a good washing out with an antiseptic lotion. To illustrate the need of examination in such cases I quote the case of:—

Sergeant B——, 19th Hussars, age 32, was shot in the outer aspect of the middle third of the thigh at the battle of El-Teb on the 29th February. He was knocked off his horse, his comrades picked him up, put him back in the saddle and he remained there until helped out by the bearer company. On his admission into the hospital he was very low and weak, his leg was confined by a long Liston's splint. From the wound a considerable discharge of a putrid character issued. On examination I felt the upper fragment of the femur, quite bare of periosteum for an inch or two, protruding into a large cavity, the lower end of the bone could not be felt, it proved to be caught up in muscle. I removed the limb, dividing the bone a little below the lesser trochanter, the lowest place I could find healthy bone. The operation was done by skin flaps and a circular cut through muscles. The wound healed in the greater part, but had some sinuses. However, the man never recovered; he was always sick, had diarrhœa, rigors, sweats, and hectic temperature, and at last on the 18th April, 37 days after the operation, he died. A post-mortem examination showed his organs to be healthy, except his left kidney which was large and white; he had no albuminuria when living, but his tissues were extremely anæmic. He died of chronic septicæmia. Now had this wound been explored between the 29th February, the day he got it, and the 9th March, the day he arrived, it would have been evident that no union was possible under the circumstances.

Again, Sergeant W. P——, York and Lancaster Regiment, was struck when lying down by a ball on the front of the left tibia just above the ankle joint, the ball lodged and was removed on board ship the day before his admission. The front plate of the bone was crushed in and a large cavity in the cancellous texture remained. A careful examination showed that the bone had not been broken in two, that no fracture extended into the joint, and therefore the damage was capable of repair. Numerous abscesses formed, but as soon as matter was suspected at once a free incision was made, the cavity in the bone was well drained, and now, 25th April, he has good motion in the ankle joint, there is no swelling or puffiness about the foot, and repair is no doubt in full progress. Unfortunately he has had a sharp attack of dysentery during the past week.

Lance-Corporal E——, York and Lancaster Regiment, was shot at El-Teb on 29th February in the right shoulder. The bullet entered above the spine of the right scapula and passed out below the acromion process. He could use his arm, even to shave with, up to his admission into the hospital on the 9th March, when he was attacked with acute inflammation of the shoulder joint. When this had subsided a thorough examination was made, which showed that the scapula and clavicle were uninjured, but that the head of the bone had been grooved by the ball, but the head was not fractured or splintered. The damage to the bone was so slight that it was left to nature to cure.

Private S. G——, 19th Hussars, was shot in the neck at the battle of El-Teb on 29th February, the bullet entered on the left side of the fifth cervical vertebra. He states that he spat up a great deal of blood at the time. On admission injections into the wound passed into the pharynx and food into the wound. He was quite paralysed on the left side and had anæsthesia of the right, deglutition very difficult. Small pieces of bone came away from time to time, but the bullet we never saw. On examination the transverse process and body of the fifth cervical vertebra was felt to be crushed. The paralysis deepened, gangrenous bullæ appeared on the ear, the sphincters and bladder lost their power, and he died on the 9th April. The post-mortem examination showed the body of the fifth cervical vertebra to be greatly injured, but no bullet could be detected.

Lance-Sergeant C. D——, King's Royal Rifles, at the battle of Tamasi, 12th March, was shot in the thigh. The bullet entered the inside of the thigh and passed outwards and downwards, wounding but not fracturing the bone. The ball was extracted on board ship, but considerable ostitis followed the injury, the upper half of the shaft feels normal, but the lower is greatly thickened and very tender; no doubt there is necrosis going on.

Private J. C——, King's Royal Rifles, at the battle of Tamasi, 12th March, was shot in the arm. The ball passed in in front of the shoulder joint 1 inch below and to the inner side of the coracoid process and came out at the posterior border of the deltoid about 3 inches above its insertion. On admission, 20th March, the wound of entrance was superficial and healing up, the wound of exit large. Some fragments of bone were removed, and on the 25th March the wound was enlarged by Surgeon R. Bond, all large splinters removed and the head of the bone enucleated. The shaft was sawn off square and the wound brought together and dressed. A counter opening had to be made on the 16th April, since when he has progressed favourably. The cavity was dressed with pledgets of carbolized oil, lint, and iodoform with outer coverings of tenax and a gutta percha splint; great attention has been paid to the drainage of the wound.

Private J. L——, 3rd King's Royal Rifles, was wounded in the action of Tamasi, 12th March, by a bullet which entered the chest at the level of the third rib a little to the outside of the nipple line, passed through the cavity towards the axillary line where it injured a rib, and passing out between the muscles injured the inferior border of the scapula, and escaped about 2 inches above the inferior angle of the scapula. Symptoms of a pneumonic process have been present, numerous spiculæ of broken rib have escaped from the lower opening, and there is an empyema of this side.

I will now describe the case of secondary hæmorrhage.

Lance-Corporal G——, 10th Hussars, age 40, service 20$\frac{8}{12}$ years, received a spear wound in the upper and anterior part of the left thigh on the 29th February at the battle of El-Teb. On the 14th March severe arterial hæmorrhage occurred from the wound. At first pressure was tried, then the wound was opened out and the bleeding point searched for, but without success, though some pains were taken to search for it amongst the muscles on the outside of the thigh. The hæmorrhage, however, continuing, Surgeon-Major Churchill prolonged the incision upwards and tied the femoral artery. The limb felt cold that evening, but the feeling soon passed off and the man promised to do very well.

On the 3rd April hæmorrhage again set in, and appeared to come from the same place as on the former occasion. On the 5th it again broke out, and as it was evident he must die if it could not be checked, Surgeon-Major Churchill tied the external iliac, since which there has been no recurrence of any bleeding.

In this case the man had a large suppurating wound. The hæmorrhage did not commence until the end of the second week after the injury, and the blood appeared to come from either the circumflex or perforating branches of the profunda. It was too severe to neglect, and the attempt to get hold of or find the bleeding point was quite useless, and, therefore, as an only resource, the main artery was tied higher up, and no fresh hæmorrhage occurred for 20 days, and none since the second operation.

Corporal M——, Royal Highlanders, was wounded at Tel-el-Kebir by a a bayonet in the left leg; the wound healed up. At the battle of El-Teb, 29th February, he received a spear wound in the same leg. The spear entered in the front of the leg and came out in the lower and outer aspect of the leg, piercing the scar of the former wound. The wound on admission was a suppurating wound, and after a few days free arterial bleeding occurred. Surgeon Mitchell felt a distinct thrill in one spot between the wounds, and on the 17th March my attention was called to the case, when I found a loud bruit and thrill quite distinct, evidently a traumatic aneurism had formed. The bleeding a few days before had been so severe that I at once attempted to cut down and tie the anterior tibial artery above and below the aneurism. On cutting through the skin my finger almost at once penetrated the false aneurism, hæmorrhage of an alarming character occurred. Esmarch's tube round the thigh was at once tightened, and I attempted to dissect out the vessel. Upon seizing the anterior tibial artery in my forceps, a piece of branched artery about half an inch in length came away in the mouth of the forceps, showing how soft and rotten the coat had become. The hæmorrhage was so severe that I at once proceeded to tie the femoral artery in Scarpe's triangle, since when there has been no further complication of any kind.

Corporal S. C——, 10th Hussars, age 39, received a sword wound at El-Teb, 29th February, which extended from the external angle of the left orbit to the transverse process of the atlas dividing the helix of the ear, the mastoid process, laying open the joint of the jaw and cutting very deeply into the soft parts at the base of the skull. On board ship he had lost a great deal of blood.

On admission the wound was very unhealthy, and near the posterior angle a large artery could be seen pulsating. The wound was dressed with carbolic oil, glycerine and iodoform, which soon made a great difference in its appearance. On the 23rd March when, in bed, at 9 p.m., a most alarming hæmorrhage took place, the bleeding point could be distinctly seen, but in the soft granulating tissue nothing could be seized. The wound was plugged; in about two hours a fresh outburst took place and this was again satisfactorily plugged with Tr. Ferri perchlor. The man was greatly frightened, extremely reduced, pale, and feeble. On the 28th March, at 7 p.m., bleeding again occurred, and to such an extent as to make it quite certain more would kill him. I therefore at once tied the common carotid. He complained for a day or two afterwards of a little tightness in the throat, but he has not had a bad symptom of any kind, but has kept a normal temperature and a good appetite. The brain does not seem to have suffered in any way, and up to the present moment, 26th April, he is progressing most satisfactorily.

Corporal M——, Gordon Highlanders, aged 37 years, service 16 years, had his thigh in its middle third amputated on the field after the battle of Tamasi, on 12th March, on account of the leg becoming gangrenous after a bullet wound. On admission, 20th March, the wound appeared to have healed, but it looked tense. On board ship there appears to have been some hæmorrhage. On the 24th March, bleeding set in during the night, and when summoned by the orderly medical officer, and whilst looking at the wound, a sudden gush of arterial hæmorrhage in a stream as large as a goose quill shot out. I opened up the wound and found it full of clots of all ages recent and old, and a deep cavity extending up the inner side of the stump, the parts were all soft and rotten. I could not succeed in getting hold of any vessel, so I proceeded to tie the femoral artery. This checked the bleeding, but the man died of shock from loss of blood on the 31st March.

Private J. H. S——, York and Lancaster Regiment, age 29, service 5 years, was wounded at Tamasi on the 12th March by a spear which entered below and to the outer side of the left acromion process, and passed upwards and inwards for about 2 inches. The humerus was grazed. The wound was unhealthy and sloughing. On the 10th April severe hæmorrhage came on, which was checked by pressure. On the 13th a large collection of pus under the pectoral muscles required to be let out. Fresh bleeding occurred from day to day. On the 21st April the large wound cavity under the deltoid was full of fresh clot, and the man extremely reduced by these repeated bleedings. It was therefore decided that as no bleeding vessel could be found and secured, it was necessary to tie the subclavian in the third part of its course. The operation was successfully performed by Surgeon Gormley, and with so far success that there has been no hæmorrhage since.

In all these cases the hæmorrhage did not occur till after the second week. In all, the wounds were or had been in an unhealthy condition, and all occurred in suppurating wounds. The cases are always anxious ones, and often most trying. In freshly made wounds the rule of tying both ends of a cut artery is, of course, the sound one, but in diseased tissues it is impossible to do this, and if the artery has undergone degeneration and softening of its walls from lying in contact with pus, it is impossible to find out exactly where it has given way. Then it is quite obvious if the bleeding is not checked the patient will die, and hence often in the night in military hospitals the surgeon has to come to a decision, and forthwith undertake a delicate operation. Against all this it is equally certain that if wounds can be maintained aseptic, secondary hæmorrhage is not met with, and hence it is most important that army surgeons should pay the greatest attention to aseptic surgery, for if in the first instance, on the field or in the field hospital, wounds are allowed to go wrong, no amount of antiseptic treatment afterwards can undo the mischief, though it may mitigate it to a very great degree. Then again the study of the subject is most necessary to prevent waste and loss of material. Abundant materials are given by the Government, but if these things, expensive in themselves, are used carelessly it adds greatly to the cost. To illustrate my meaning; supposing we have a septic wound discharging freely a quantity of pus, to what purpose is it to wrap this wound up in folds of carbolic gauze and macintosh. On the other hand, if the wound has been rendered aseptic then by all means use these dressings freely, and maintain it so.

No wound was brought into the hospital aseptic, so the treatment was generally that of an antiseptic nature, and it was undoubtedly attended with great success. There was a total absence of all smell from the wards or tents. There were no cases of pyæmia or erysipelas amongst the men, but in the case of the officers, one case may be cited which would come under this heading.

Major D——, York and Lancaster Regiment, was severely wounded at Tamasi on 12th March. He had been wounded previously on the 29th of February at El-Teb by a bullet in the leg, but this he seems to have paid little heed to. At Tamasi he received a sword cut on the forehead, a small flesh wound in the leg, and a severe sword cut on the left forearm, rather on its ulnar side. He was guarding his head at the time with his arm. The sword divided the soft parts, tendons, &c. On admission into this hospital on the 20th March, the wounds on the forehead and leg were very small, but the wound on the forearm was more serious. A large patch of skin was sloughing over the ulna. The wound was tense with pus and dragging on the sutures, and the distal ends of the extensor tendons were lying loose in the wound.

The wound was opened out, well washed with a strong carbolic solution, and after a few days, when the skin seemed to have formed a line of demarcation between it and the slough, I proposed an attempt to join the ends of the tendons. He was placed under chloroform and the parts opened up and the four tendons of the extensor communis digitorum were united after their ends had been refreshed. To prevent the tension which was extreme, I put catgut sutures to unite the ends, and longer ones an inch from either end. To enable the proximal ends to be drawn down a tenotomy knife had to be used to divide the tendon and muscles higher up, thus I was able to bring the ends together.

The next day he suffered from headache and nausea, and again on the following day accompanied by constipation and tenderness over the liver, and 30th March feverishness, rigors, &c. set in. A blush extended up the arm, and a sharp attack of cellulitis set in. The lymphatics up the arm became hard, and from time to time a blush would appear here and there. He was extremely ill for some time. The tendons sloughed and his convalescence was slow. No great formation of matter occurred anywhere. His general health had not been very good, and he was greatly reduced by the exposure and trials of the campaign.

No other case of erysipelas occurred in the hospital.

For the treatment of the wounded there was a good supply of boracic lint, a less amount of boracic wool, plenty of carbolic acid, carbolic gauze, protective, drainage tubing, gutta-percha tissue, and mercurial chloride.

Boracic acid is an extremely weak antiseptic, and not sufficiently powerful to try and arrest a sepsis well established. For instance, boracic lint round a wound after 24 hours would have a slight smell, but lint soaked in mercurial chloride would not. The preparations of salicylic acid are far better antiseptics than boracic acid, but we had none. The drainage tubing was not of a sufficiently good quality. The black tubing collapsed so easily and was not large enough in calibre. The red rubber variety is harder and much to be preferred. I would here note that drainage tubing should not be thrown away by nurses, orderlies, &c., but if done with it should be well cleansed and then soaked in 1–20 carbolic solution, when it will be quite fit to use again.

A good trial was made of mercurial chloride. That it is not a new remedy is evident from the use the older surgeons made of yellow wash and black wash in putrid sores, though they knew nothing about bacteria, bacilli, and micro-organisms generally.

The chloride is not very soluble, and in practice it was found not to be quite so soluble in glycerine as had been described. The proportions used were:—

Mercurial chloride - - -	ʒiv.
Glycerine - - - -	ʒvi.
Alcohol - - - -	ʒiv.

one drachm of this solution diluted with two pints and a half of water makes a solution equal to 1 in 1,000. It has most decided properties, and I believe will form one of our most valuable means of preserving our wounds from septic influences. We wetted the lint in it and then covered it over with gutta percha tissue.

No cases of constitutional affection came under my notice.

For foul cavities, lint soaked in carbolic oil and iodoform is a capital application. Iodoform was largely used. But when once a healthy surface was established, the boracic acid ointment was generally used, and changed as seldom as possible. Nothing is to be more deprecated than the continual opening of wounds and washing them with antiseptics, as carbolic acid, &c., when a healthy granulating surface has appeared.

Upon the treatment of wounds in the field I do not attempt to theorize, as I had no experience, but from the experience I did have of the wounds which reached the extreme base hospital I am sure that there is need for study in the means which have proved themselves sufficient to keep wounds aseptic. At the same time there is a general move in the direction, and attempts are made to follow out the teaching of Lister, though everybody is not so happy as to secure his results.

APPENDIX No. IV.

REMARKS ON "FIRST FIELD DRESSING PACKETS."

By Surgeon-General T. LONGMORE, C.B., h.p., Professor of Military Surgery, Army Medical School.

Desirable qualities of "first field dressing packets."

The following appear to me to be the requisite qualities of a "first field dressing packet":—

1. The dressings contained in it should possess antiseptic qualities.
2. The packets should be fitted for being kept in store without deterioration for a period of three or four years.
3. The contents should be simple in their nature, and such as can be quickly and easily applied when required to be used.
4. The dressings should be suited for use either with small bullet wounds or with rugged shell wounds.
5. The packets should be cheap in cost.
6. Their contents should be protected against the effects of dirt, grit, and damp from outside, as well as from evaporation from within.
7. The contents should comprise (*a*) two pads, so that a wound of exit, if there be one, may be covered as well as the wound of entrance; (*b*) a piece of bandage to secure the pads and support the injured parts, together with means of fastening the same; and (*c*) a triangular bandage to be used either as a cover for the dressing, or as an arm sling, or as a help in securing splints or substitutes for splints in cases of compound fracture.
8. The whole packet should be of a suitable size for being carried in a pocket in the soldier's uniform, the position of which should be settled by proper military authority; it should be easily got at in any position of a soldier, and should not give rise to inconvenience from undue pressure; it should not stain the clothing of the soldier; and it should not have an odour that is likely to be offensive to him so as to induce him to rid himself of it without due cause.

Intended purposes of first field dressings.

The principal purposes in view in the use of first dressings in the field are to protect wounds, when they are free from active hæmorrhage and otherwise in a suitable condition for their application, from dirt and other sources of infective processes, as well as to guard the injured parts against further injury by affording an appropriate cover and support to them until the wounded men can arrive at a field hospital at which their wounds may be safely examined and definitely treated. At the same time it is necessary that the first field dressings should be fitted for being left on wounds without hazard for a day or two, owing to the uncertainty when the field hospitals may be reached by the patients, and also as to the time which may elapse before there is an opportunity of attending to them after their arrival.

In making use of first field dressing packets in the field it should be understood that owing to the circumstance of a man being liable to be wounded in action in more than one part of his body, and occasionally owing to the extent or other characters of a single wound, the service of more than one packet may possibly be required. In such cases a packet carried by a comrade, or obtained from some other available source, may be turned to account in supplementing the packet carried on the wounded man's own person.

Two specimens forwarded.

The two specimens of first field dressing packets forwarded for consideration have been designed with the object of embodying, as far as practicable, the qualities which have been enumerated in the first part of this paper. The contents of the two packets differ only in respect of the material employed in forming the pads intended for direct application to the wounds. In one instance "sublimated wood-wool" is employed; in the other, the so-called "carbolised tow."

The following are the contents and composition of the two packets referred to. They are respectively marked specimen No. 1 and specimen No. 2.

Contents and Composition of Specimen No. 1.

1. Two pads of sublimated wood-wool (perchloride of mercury, ½ °/o). Dimensions of the pads in their dry state, 4″ × 3″ × ⅛″. The wood-wool is inclosed in carbolised gauze.
2. One carbolised gauze bandage, 2 yards long and 4″ broad, with one safety-pin.
3. One triangular bandage, of unbleached calico; base 48″, two sides, each 34″; folded and fastened together by four pins.
4. Tinfoil, 7½″ × 10″.
5. Cover of parchment paper, secured by flour paste impregnated with ½°/o of perchloride of mercury.

Contents and Composition of Specimen No. 2.

1. Two pads of carbolised tow. Dimensions, dry, 4″ × 3″ × ⅛″.
2. 3. 4. 5. Same as described above with regard to specimen No. 1.

Remarks on the contents of the packets.

REMARKS on the separate contents of the two first field dressing packets.

The pads.

1. The two pads are large enough completely to occlude the wounds of entrance and exit ordinarily made by rifle bullets, or, if placed side by side or end to end in suitable position, are able to cover a linear cut about 7″ long, or a shell wound 3″ broad by 5″ long.

In specimen No. 1 the pads are composed of sublimated wood-wool in small bags of carbolised gauze; in specimen No. 2 of carbolised tow, also placed in bags of carbolised gauze.

The sublimated wood-wool is a soft material and is very absorbent; at the same time the perchloride of mercury gives it antiseptic properties.

The "carbolised tow" is some of that which is issued for ordinary hospital purposes. It is antiseptic in property, sufficiently soft, but not quite so absorbent as the wood-wool. However, I believe it will answer sufficiently well all the purposes intended by first field dressings.

I am not acquainted with the precise proportions of the materials with which the carbolised tow is impregnated, but am informed that it consists of tow imbued with wood tar to which 10 per cent. of carbolic acid is added.

I have furnished a packet with carbolised tow pads, as this material, in addition to its antiseptic qualities, is cheaper and more easily obtained than the sublimated wood-wool. At the same time the tinfoil and parchment coverings of the packet prevent the escape of a tarry odour from the pads inside.*

Gauze bandage.

2. The carbolised gauze bandage is of the usual kind supplied for hospital use, and is long enough to keep the pads secure on a wound in most parts of the body with the aid of the safety-pin attached to it. If additional bandage is required it must be got from a second packet; in some cases the addition of the triangular bandage will effect what is needed in this respect.

Triangular bandages.

3. The numerous uses to which the triangular bandage can be applied, together with the fact of these applications being taught to the men of the Medical Staff Corps, make it a very desirable as well as a very servicable addition to the first field dressing packet. If the representations of its uses were printed on the calico, as in Esmarch's triangular bandage, the applications of the bandage would be obvious to untrained as well as to trained men, but of course this would increase expense.

Tinfoil.

4. The wrapper of tinfoil serves to prevent evaporation of the carbolic acid and the other chemical substances with which the dressings are impregnated; at the same time the tinfoil protects the dressings themselves from damp, and sources of impurity from without.

The tinfoil, owing to its want of toughness, would be readily torn if it were rubbed against sharp-edged or sharp-pointed substances; this is obviated by enclosing it in a parchment paper cover.

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* A supply of first field dressing packets, containing the carbolised tow pads, has been procured, and a consignment of them has been despatched to Egypt and to Bechuanaland for trial during the military operations in progress in those countries and report.

The tinfoil cover, with a little care and dexterity, may be so opened and spread out after the removal of the parchment paper cover as to serve for an additional dressing to the wound in cases where it is desirable to prevent evaporation from the absorbent carbolised pads, and to keep them moist, when they have been rendered damp by being dipped in water before their application.

Parchment paper cover.

5. The parchment paper cover serves not only to keep all the contents of the packet together but also to protect them from grit, dust, dirt, and other sources of impurity. Being fastened together by paste, in which a certain amount of perchloride of mercury has been dissolved, the paste fastening is not likely to deteriorate nor to be attacked by insects when the packets are kept in store. The parchment paper serves also as a convenient label on which a list of the contents of the packet and directions in respect to opening it may be printed.

Size of the packet.
Weight of the packet.

Size and weight of the packet complete.—The size of the complete packet is 4½″ × 3¼″ × ⅞″. Its weight is 4 oz. If made in large numbers, certain parts of the packets would probably be stamped out and blocked, so that the whole packet might be more compressed and neater in form.

Position of first field dressing packet on active service.—It is very important that a field dressing packet should be so placed that every one, whether surgeon, orderly, or soldier, should know where to find it, and should be able to get at it without difficulty, in case of need. It may have to be carried in different parts of the uniform by men in different branches of the military service. During the Ashantee campaign the packet was carried by the infantry soldiers within an inside pocket in the left breast of the soldier's tunic, and this seems to be a good situation; but I would suggest that it may be worth considering whether a pocket should not be made for it of the right size on the outside of the left breast of the tunic, with an upper lappet fitted for buttoning over the opening. It would not apparently interfere with the valise straps, and would be below the water-bottle strap, as at present arranged, in this situation; and at certain distances from an enemy in the field the packet might even serve as a means of protection against the entrance of a shot in this vital part of the chest.

APPENDIX No. V.

CASE OF MALIGNANT PUSTULE.

By Surgeon A. P. **Hart**, M.B., M.S., Penang.

This case will, I think, be worth publishing, as it may draw attention to a somewhat rare disease, and lead others to a correct diagnosis where early and energetic measures appear to be almost essential for the saving of life. Unfortunately in this case, though the patient was seen with me by Staff Surgeon Ellis, R.N., and Dr. Kerr, Colonial Surgeon, during the few days he was in hospital, the diagnosis was not determined till too late for the recognised modes of treatment to be adopted.

On the afternoon of July 24, 1854, Private H———, age 26, a healthy and temperate man, belonging to the Royal Inniskilling Fusiliers, came to the station hospital in Penang with his left ear red, swollen, and very painful; his ear sticking out, the result of considerable œdema behind the ear. On the upper edge of the ear was a black eschar from ½ to 1 inch in diameter, surrounded by the tissues in an acutely inflamed state, and behind the ear were two bullas.

He stated that two days previous he had been bitten on the ear by a small black fly, and that the next day it began to be painful, but he did not think it of sufficient consequence to come to hospital. I ordered a purgative and had poultices applied.

July 25th. In same condition. Ear very painful; the œdema behind the ear still present. Ordered diaphoretic mixture, and put him on milk diet.

July 26th. Temp. 103° ·6, pulse 140°. Ear not so inflamed and was less painful. He had two 10 oz. doses of quinine, which reduced the temperature.

July 27th, at 4.30 a.m. His groaning woke a patient up, and he was found to be unconscious. Temperature then was 102°, pulse 120°, skin very hot and dry, unable to speak, but partly conscious on being roused; head turned over to the right side, and it seemed to cause him pain if it was forcibly turned. The left side of the neck was hard, with brawny œdema. Could not feel if the glands were enlarged. He swallowed with great difficulty, and had a little froth coming from the mouth. The pupil of the right eye was dilated and insensible to light. I ordered 5 grains of calomel and 10 grains of quinine, and had fomentations applied to the left side of the neck.

At 11 a.m. his temperature was 103°, and remained at this till the time of his death. His bowels were opened after the calomel, and he was sensible enough to make a sign when he wanted to pass his excreta. He sent for a paper and pencil to write, but he was not collected enough to do more than make a few random strokes.

7 p.m. Low muttering delirium set in with picking of bedclothes. There was a red, erysipelatous blush over the left neck. His head still turned to the right, and he was conscious enough to feel it if we put it straight. I ordered Tinc. Ferri Perchlor in half drachm doses, and had flour sprinkled over his neck. I also gave him two drops of tincture of aconite every two hours with a hope of reducing the temperature.

July 28th. Was very restless all night and got no sleep. Quite unconscious, head in same position. Temperature 103°, pulse 130. The pupil of his right eye was normal and acted to light. Skin very hot and dry. Had his head shaved and applied ice. I put a mustard poultice over region of heart, as there seemed some cardiac disturbance, but no murmur.

10.30. Began to suffer from dyspnosa, and became cyanosed, temperature went up to 104°, and his pulse became irregular, and he died at 1.30.

No post-mortem, as objections were raised by a relation of his. Rigor mortis set in within an hour. Hypostatic congestion very marked all over body. Took blood from the femoral artery; it was very dark, tarry, and viscid. I put some glycerine with it, and the next day examined it with a microscope of 300 diameters. I found numberless bacteria, but if they were the bacilli anthracis I am not competent to say, though judging from the symptoms, I can have no doubt about it.

Now, I consider, that if on admission I had made a correct diagnosis, this man's life might have been saved, but I looked at this eschar on the ear as caused by the bite of some insect aggravated by irritation from picking or applying something to the spot and not as a malignant pustule; so I failed to excise and cauterise the place, and the man was put on a milk instead of an animal diet, which is recommended. At one time the case was judged to be one of erysipelas. The paralysis of the right eye was peculiar, as no other part of the face was affected, and this entirely disappeared within 24 hours. It was due probably to some local hæmorrhage or exudation in the brain which afterwards became absorbed, such appearance being very common in post-mortems on bodies of persons who have died from this disease. As regards the etiology of the case, it was probably caused by indirect inoculation through the medium of the insect which bit him. Large herds of cattle frequent the extensive grazing grounds around the barracks, and though I was not able to discover that any animal had died from this disease, it seems most likely that the insect conveyed the virus from a diseased carcase. Investigations by Pasteur seem to show that these bacilli contain such an extraordinary amount of vitality that the ordinary burial of a carcase is not sufficient, and that there is a possibility of their being brought to the surface by means of earth worms, and so contaminating the pasture on which cattle may afterwards feed.

APPENDIX VI.

REPORT ON THE CONFERENCES HELD AT GENEVA BETWEEN THE 1st AND 6th OF SEPTEMBER 1884 BY THE REPRESENTATIVES OF VARIOUS GOVERNMENTS AND NATIONAL AID SOCIETIES AT THE INVITATION OF THE RED CROSS INTERNATIONAL COMMITTEE OF GENEVA.

By Surgeon-General T. LONGMORE, C.B., Q.H.S. (Retired), Professor of Military Surgery, Netley.

Historical summary.

In presenting the following report regarding the International Conference at Geneva between the 1st and 6th of September last, both days inclusive, it may be well briefly to call to mind the following historical facts which had an important bearing on it. The first International Conference in connexion with the formation of national societies for aiding sick and wounded soldiers in time of war took place at Geneva in October 1863. Not only the institution of national aid societies was established on this occasion, but the Geneva International Committee was also founded, to act as the international centre and organ of communication of the National Aid Societies. Further steps were taken at this meeting which led to the Diplomatic Conference in the following year. It was from this second Conference that the treaty emanated, which is generally known under the name of "The Geneva Convention of the 22nd of August 1864." Thirty-two states in various parts of the world have become and are now signatories to that Convention. There have been three International Conferences of National Aid Societies since the Diplomatic Conference in 1864. One took place at Paris in August 1867; there was a second Diplomatic Conference at Geneva in the following year 1868, and a third Conference was held at Berlin in April 1869. Additional articles to the Convention of 1864 in respect to the care and treatment of wounded soldiers in time of war on land, and fresh articles in respect to the wounded in naval warfare, were projected at the second Diplomatic Conference at Geneva in 1868; but, as these proposed additions to the Convention of 1864 were never ratified by competent authority, they have never been legalised or promulgated as the original Convention has been. It was resolved beforehand that no proposal to interfere with the original articles of the Geneva Convention of 1864, nor any suggestion for re-introducing a consideration of the additional articles which were projected at the Conference at Geneva in 1868, should be admitted among the questions to be discussed at the Conference of the present year. This resolution was adhered to, except in one instance; the exception being that one of the resolutions agreed to at the Geneva meeting of this year was to the same effect as a resolution embodied in one of the proposed additional articles voted at the Geneva Conference of 1868.

The Conference, which has recently been concluded, was convoked at the desire of several National Committees for the discussion of certain special subjects, and with the expressed consent of the majority of the other committees who were consulted on the subject. It was decided by the delegates who attended the Conference of 1869 in Berlin that a further meeting should take place in two years from that date at Vienna. The outbreak of the Franco-German war prevented the accomplishment of this arrangement at that time, and this projected Conference at Vienna has never been held. Acting on the desire and assent above referred to of the National Aid Societies, the Geneva International Committee addressed a circular in March 1884 requesting the National Aid Societies to depute representatives, and at the same time inviting Governments who had given their adhesion to the Geneva Convention of 1864 to send delegates to Geneva, for a meeting to commence on the 1st of

September 1884. The time was thought opportune for such an assembly, as just 20 years had elapsed since the original treaty of 1864 had been signed, and as an interval of 15 years had occurred since the last Conference, viz., that which was held at Berlin in 1869; and as, during this interval, a large amount of practical experience had been gained by the National Aid Societies, as well as by the International Committee of Geneva, in consequence of the occurrence of the Franco-German war of 1870–71 and the Eastern war of 1877–78 between Russia and Turkey.

Change of title adopted by certain National Aid Societies.

Title of the Ottoman National Aid Society.

The British National Aid Society.

Change of title of the International Aid Society of Geneva.

It may be useful to notice, before proceeding further, that a large number of the national societies for aid to wounded troops have now changed their titles, and adopted the denomination of "Societies of the Red Cross," as a shorter and more convenient, and at the same time a more expressive, appellation. The red cross on a white ground was originally adopted as the badge of the Geneva Convention in 1864, partly as symbolizing the humanitarian principles on which the Convention was based, but chiefly as a complimentary tribute to the nation in whose territory and at the instigation of whose Government the Conference took place at which the Convention was framed. The national flag of Switzerland being a white cross on a red ground, the colours were simply reversed. Among the National Aid Societies that have not adopted the title of the Red Cross is the Ottoman National Aid Society, which bears the name of the "Society of the Red Crescent," and the British National Aid Society. The latter still retains the name which it took at the date of its formation in September 1869, viz., the "British National Society for Aid to the Sick and Wounded in War." The Geneva Committee, which hitherto has been entitled "Le Comité International de Secours aux Militaires Blessés," now bears the name of "Le Comité International de la Croix Rouge." It has formally taken this latter designation only since the recent Conference.

Composition of the assembly at the Conferences.

Composition of the Assembly at the Conference of 1884.—An analysis of the list of members attending the Conference of 1884 shows that 22 states were represented at it, Germany being regarded as a single state. The delegates from the German Central Committee, however, included representatives of the Central Committees of the kingdoms of Wurtemberg, Bavaria, Saxony, of the grand duchies of Saxe Weimar, Oldenburg, Mecklenburg-Schwerin, and of other minor duchies and free cities. The Governments of 19 countries sent delegates to the Conference. These were Germany, Austria-Hungary, Great Britain, France, Russia, Belgium, Sweden and Norway, Spain, Switzerland, Denmark, Portugal, Bulgaria, Greece, Italy, Holland, Servia, United States of America, Peru, and the Argentine Republic. Altogether the number of delegates of various Governments and National Aid Societies who were present at the Conference, including those of the Geneva International Committee, amounted to 89. Three honorary presidents were elected at the first meeting, viz., his Excellency Professor Baron von Laugenbeck, Count Sérurier, delegate of the French Government, and Professor Longmore, delegate of the British Government. Monsieur Gustave Moynier, President of the International Committee, was appointed President of the Conference; six vice-presidents and a secretary general were also elected at the same meeting.

Work of the Conference.

The work of the Conference included daily general meetings, at which papers on various subjects were read, and some of the questions which had been previously distributed in a set programme, were discussed; demonstrations of part of the sanitary matériel of the Swiss army; a demonstration of the improvisation of means of help for wounded men on active service in the field; an exhibition of the application of electric lighting to fields of battle; together with several special meetings confined to the delegates from the National Aid Societies. There were also various social reunions of the members engaged in the Conference. At the close of the Conference the Council of State of the Republic and Canton of Geneva and the Municipal Council of the City of Geneva together invited the members of the Conference to a dinner in the new spacious National Hotel at Geneva.

Programme of subjects for discussion.

The original programme of subjects proposed by the central committees for discussion, and formally issued by the International Red Cross Society, contained 23 questions under separate headings. One of these, No. 14, was subsequently withdrawn from the programme. Of the remaining 22 eight were not brought under consideration at the Conference owing to want of time. The 14 subjects which were deliberated upon, and on which votes were recorded, were not taken in exact succession, but were discussed in the following order:—Questions Nos. 8, 16, 17, 2, 23, 1, 6, 3, 4, 22, 5, 11, 18, and 9. A report had been prepared on each question by one or other of the national committees that had voluntarily charged itself with the task of examining the subject beforehand, and the reading of this report, on the introduction of the question to the Conference, cleared the way for subsequent deliberation upon it.

It will be sufficient to glance at the nature of the 14 questions which were considered at the Conferences, and to report the conclusions arrived at upon them. A few comments of my own upon some of the questions discussed will also be found in this report. The details of the discussions at the Conferences will be found in the printed Compte Rendu of the work of the Assembly, which will follow this report. The questions are given in the order in which they were discussed.

Questions Nos. 8, 16, and 17.

The following questions under Nos. 8, 16, and 17 were deliberated upon together, as they had a mutual bearing upon one another. Question No. 8 emanated from the Central Aid Society of St. Petersburgh at the time of the Conference at Berlin in 1869, No. 16 from that of Milan, and No. 17 from that of Vienna. The subjects of the questions were as follows:—

No. 8. "Should not the International Committee devote itself, by preference, in time of war to the sick and wounded of the retreating army without distinction of nationality?"

No. 16. "What general principles should overrule the mutual relations and communications of the Central National Committees?"

No. 17. "In what way, in time of war, can the correspondence, which is indispensable with the aid societies of an enemy's army, be established?"

Proposition of Russian Central Committee.

The Central Russian Committee, in consequence of the events that had occurred since the time of the Berlin Conference, abandoned the views embodied in question 8 which it had originally put forth, and in their stead submitted to the Conference the following proposition in reference to the subjects embraced by the three questions Nos. 8, 16, and 17.

"The Central Committee of the Red Cross of Russia, relying on the experience of the 18 years of its existence and on that gained in recent wars, and thoroughly recognizing the eminent services rendered to sick and wounded soldiers during these wars by the assistance given under various forms to the belligerent armies, is at the same time convinced that there is an absolute necessity for an international institution, perfectly neutral, whose authority shall be recognized by the Powers who have accepted the Geneva Convention of 1864, in order to establish a legal and stable bond between the Red Cross Societies. It proposes, therefore, that a plan for organizing such an institution should be worked out by the various Central National Committees, and that this plan should afterwards be submitted to their respective Governments for examination."

Proposals of the Geneva International Committee.

The International Committee of Geneva submitted the following formal conclusions on the subjects embodied in questions Nos. 16 and 17.

1. "The 'Bulletin International,' which is published at Geneva, is useful to the National Aid Societies as an organ of communication. They ought all to work together actively and help in its production, and should engage themselves to support the expense of its publication in case the subscriptions are insufficient for the purpose."

2. "Periodical conferences of the Central National Committees are desirable for the discussion of general questions and of the personal relations of members of different societies."

3. "Central National Committees, while absolutely independent in respect to their internal organization, should recognize that they are firmly united by bonds of a common purpose in time of war, and accept the obligations which this union entails."

4. "It is useful to preserve, for the general interests of the Red Cross institution, besides the Central National Committees, an International Committee, having for its special tasks—

"*a.* To work at the maintenance and development of the relations of the Central National Societies with one another.

"*b.* To notify the constitution of new societies after having become assured as to the bases on which they are founded.

"*c.* To establish in time of war an international agency for notifying and forwarding gifts of all kinds for the wounded of the belligerent armies.

5. "In time of war the insurance of the correspondence of aid societies among themselves will become a charge of the International Committee or of it agency near the belligerents."

Decision of the Conference on the above questions.

With regard to the propositions of the Russian Committee and of the International Committee, it was decided after discussion at the Conference, "that the proposal of the Central Russian Committee on questions Nos. 8, " 16, and 17, together with the conclusions formulated by the International " Committee on Nos. 16 and 17, should be addressed to all the National " Committees for examination, and that after this investigation they should " be brought forward and decided upon at the next Conference. The " position of the International Committee in the meantime to be maintained " as at present established."

Remarks on the Russian proposals with reference to questions Nos. 8, 16, and 17.

It is evident that many practical difficulties stand in the way of attaining the accomplishment of the suggestions put forth by the Russian National Committee. It can hardly be anticipated that the Governments of all the Powers, who are signatories to the Geneva Convention, will assign to a perfectly neutral International Committee at Geneva or elsewhere the position and independent authority contemplated in the Russian proposal. It at the same time seems probable that a sufficiently stable bond of union between the different National Aid Societies can be effected by simpler means if it is generally desired. The proceedings at the Conference proved that the Geneva International Committee, as it exists at present, has an acknowledged position and moral weight sufficient for the superintendence of the general interests of the work embodied in the Red Cross Societies, for serving as a bond by which they are all brought into connexion with one another, and also, with certain restrictions, for speaking in their name in the capacity of a representative body. It is hardly likely that the powers of the International Committee will be extended beyond these limits, and it is very doubtful whether the arrangement would work satisfactorily if they were.

Questions Nos. 2 and 23.

The second question brought under discussion at the Conference was the following:—

No. 2. "If the National Aid Societies are to procure during time of peace objects which are likely to be needed in time of war, what objects are most to be recommended for this purpose?"

This question led to a prolonged discussion in which many members of the Conference took part; and, in the course of it, another question, No. 23, became associated with it.

The following were the terms of this latter question:—

No. 23. "On the necessity of establishing an exchange of drawings and documents concerning ambulance matériel between Central National Aid Societies."

The conclusions adopted by the Assembly on these two subjects were the following:—

Decision of the Conference on questions Nos. 2 and 23.

"The general principle that the Central and Provincial Aid Committees are to prepare in time of peace materials of all kinds for supplying the necessities of sick and wounded, which has been adopted at former Conferences is maintained."

"Red Cross Societies, and especially those on whom it is incumbent, by the force of their statutes or by official arrangements, to have the exclusive charge of an important part of the sanitary service, must take the necessary measures for having ready, in case of mobilisation, matériel adequate in quantity and quality to the exigencies of the situation, especially for first necessities, or otherwise must adopt means for insuring that this matériel shall be forthcoming on the need arising, so that the general organization for taking the field shall not be shackled."

"Referring to former resolutions adopted in 1869, the Conference expresses its desire that each Central Committee should form an album or collection of illustrations, showing either by drawings, photographs, or engravings all its ambulance matériel as well as the corresponding matériel of the military administration of its country, and that it should send a copy of this album or collection to each of the Central Committees as well as to the respective Governments that have adopted the Geneva Convention of 1864. Such an exchange, it is considered, would have the effect of generalising what otherwise will be mostly local, and so far as possible will tend to the desired uniformity in ambulance matériel."

"The Conference further expresses a desire that an international commission may be created for making inquiries on the subject of ambulance matériel, and puts forth a hope that means may be found for causing the dimensions of ambulance stretchers to be rendered uniform in all armies."

"The Conference refers to the next Conference a consideration of the proposal to organise international museums of ambulance matériel."

Remarks on the resolutions arrived at regarding questions Nos. 2 and 23.

It is obvious that these resolutions chiefly concerned certain continental National Aid Societies. As regards the British National Aid Society, as neither statutes nor formal official arrangements exist for it to supply any parts of the sanitary service in case of mobilisation for a state of war, and as this society does not possess any ambulance matériel, excepting some which it has obtained from the War Department, it would not be affected by them. There would probably be greater difficulty in causing the dimensions of stretchers in use in different armies to be rendered uniform than might at first appear. The change in dimensions of stretchers would, not infrequently, involve changes in other parts of the ambulance matériel, for their existing lengths and widths are in many instances arranged for fitting within the regulated patterns of wheeled stretcher-supports, ambulance wagons, and in some cases of railway conveyances.

Questions Nos. 1 and 6.

The next question discussed was that marked No. 1, which had been proposed for examination by the Brussels Central Committee. The question was the following :—

No. 1. "What is the best mode of organisation for provincial sub-committees and ladies' committees? What means should be taken to increase their number?"

This question became widened into a discussion on the relations which should exist between state and voluntary aid in time of war, and as the reply on this subject involved also a reply to question No. 6, "What are the proper "relations to be established, in time of war, between the military authority "and the aid societies?" It was agreed at the Conference that the two questions should be considered together. The conclusions adopted by the Conference on these questions were the following :—

Decision of the Conference on these questions.

1. "No international regulations can determine the relations between states and their voluntary aid societies."

2. "There does not exist any formula which can be applied generally to all states for the organisation of voluntary aid. This organisation must be regulated in accordance with national and local circumstances. It is, however, desirable that the Red Cross Society of each country should cause its legal position and personality to be officially proclaimed."

3. "The concurrence of committees of ladies with the work of Red Cross societies is indispensable."

Remarks on the subjects discussed in questions Nos. 1 and 6.

With regard to the main question referred to in these conclusions, it appears obvious that there is only one principle on which a system of voluntary aid can be adapted to military organization in time of war, and that is, that the voluntary must for the time become incorporated with the military establishment, while the sphere of activity of the former must be relegated to such a part of the military operations as the military regulations and the actual commander on the spot may determine. On any other principle a volunteer aid establishment would interfere with and probably impede the operations of any organized military force.

Questions Nos. 3, 4, and 22.

A considerable amount of time was devoted at the Conference to the subject of obtaining hospital attendants of both sexes in sufficient numbers and sufficiently trained to meet the exigencies which arise in time of war. This subject was specially referred to in three questions submitted to the Conference, Nos. 3, 4, and 22, the two former emanating from the Central Committee at Berlin, the last from the French Central Society. It will suffice to quote the three questions referred to, and record the recommendations which received the assent of the Assembly.

Question No. 3. "What measures should be taken during peace time, in order to have assurance that in time of war a sufficiency of trained sick attendants of both sexes shall be available for field and reserve hospitals, for railway ambulances trains, for the points at which railways receive or discharge sick and wounded, and for hospitals along the lines of communication?"

No. 4. "What means should the societies employ to make sure that the hospital personnel, trained at their expense or with their co-operation in time of peace, shall be at their disposal when war breaks out?"

No. 22. "What are the views of the Conference regarding the creation or development of a superior degree of instruction for female superintendents of the nursing service of hospitals?"

Resolutions of the Conference on these questions.

The recommendations made to the National Aid Societies on the foregoing questions were the following:—

1. "Sick transport columns ought to be formed in time of peace, and should be actively practised at suitable times, in order to put to proof, and fix in the memory, the knowledge acquired by the personnel on the subject, as well as to habituate the personnel to habits of discipline which are essential."

2. In countries where 'Societies of Veterans' exist, possessing, as they do, a personnel excellently well fitted for assisting in the transport of wounded, efforts should be made to get them to interest themselves in the organization for voluntary aid to sick and wounded soldiers, wherever this object has not already been accomplished.

3. "When examining the capabilities of female nurses, at the same time that their intellectual and moral qualities are taken into account, the state of their health should be noted, and whether they are strong enough for performing the services which will be required from them."

4. "Professional associations of men employed in the service of sick persons should be formed—(*a*) in order to foster and maintain among them a sentiment of professional honour, and (*b*) to protect from an uncertain future those who, in the exercise of their functions, may be rendered partially or wholly incapable of gaining a livelihood. This end will be best attained by a system of mutual insurance against accidents."

5. "All persons who will be called upon to enter actively upon certain functions as soon as mobilization is ordered should have pointed out to them, in time of peace, the special branches of service to which they will be attached, so that they may become quite familiar with the duties which will then devolve on them.

6. "A reserve establishment of persons formed beforehand and of sufficient number should be organised to fill up vacancies as soon as they occur and so prevent any interruption in the service.

7. "As regards question No. 22 the Conference recommends aid societies to develope, in time of peace, the instruction of ladies to whose charge might be committed the superintendence of local ambulances and stationary Red Cross hospitals. This instruction should be so directed as to enable them efficiently to second the physicians and surgeons by an intelligent execution of their prescriptions regarding the hygiene of the wards and the treatment of the patients."

Question No. 5.

The question whether National Aid Societies ought to take an active part in any other public calamities than those incidental to a state of war was brought under notice through question No. 5. This question was introduced by the Geneva Committee. The question was as follows:—

No. 5. "What experiences have aid societies hitherto had in respect to intervention in any other great public calamities than wars?"

Evidence was adduced to show that aid societies have furnished assistance on various occasions to sufferers from epidemic outbreaks of disease, from earthquakes, and from other such calamitous occurrences, and the propriety of regarding the administration of such help as being one of the functions of volunteer aid societies was confirmed in the conclusion adopted at the Conference on the subject. The resolution voted was the following:—

Resolution of Conference upon it.

"Aid societies are empowered, in time of peace, to associate themselves as "much as possible with all humane works corresponding to the duties which "they have undertaken to discharge in time of war, and to lend their assist- "ance in all public calamities which require, like war, prompt and well "organised succour."

Identification of the dead and

A subject which has been often considered at Conferences of the National Aid Societies, and to which a great deal of attention has been devoted on the continent, viz., the means of identifying the badly wounded and dead on fields of battle, was again brought under notice at this Conference. A special question, No. 11, was sent from the Central Society at Berlin on the subject. It was as follows:—

badly wounded on fields of battle.

No. 11. "What measures have been, or ought to be, taken by aid societies "in order that the identity of the dead and wounded may be established?"

Question No. 11.

The evidence adduced at the Conference showed that, in spite of the military arrangements adopted in various armies for the identification of soldiers who may happen to be badly wounded or who are killed on fields of battle, the proportion of cases in which the names and conditions of individuals among the slain cannot be recognised, and whose decease cannot therefore be authenticated for legal or official purposes is still a very large one. As far as the regular forces of the British Service are concerned, no difficulty has been experienced, so far as I am aware, in ascertaining and recording the name and corps of every soldier who has been wounded or who has died in action. But the wars in which British troops have been engaged since the time of the Crimean War have been very different in many respects from the great wars which have taken place on the continent of Europe. The difficulty hardly appears to exist as regards the dead and wounded of the conquering army, it is chiefly met with in the cases of the dead and wounded of the defeated troops who lie on the ground which remains in the hands of the victors. It too often happens that identification tablets or small distinguishing metal plates, when such are worn suspended from the neck, as they are ordered to be in the French and German armies during active service, are removed by strangers and kept as relics, or are at any rate taken away and not afterwards accounted for. Not unfrequently the bodies of the dead have been entirely stripped of their clothing, or particular articles of uniform have been removed, and when marks of matriculation upon these articles have been trusted to as the means of identification their contemplated purpose has been thus defeated. One member of the Conference, Baron Dr. Mundy, mentioned that during the war in the Caucasus camp followers and others took great pains to carry off the identification medals, which they regarded as objects of value, from the dead; and another member, Baron de Holleben, President of the Central Prussian Committee, stated that among his countrymen there were some who attached a sinister significance to the identification plates issued to them for being worn round the neck, to which they had given the name of Todt-marken, or death marks, and had, therefore, superstitiously thrown them away, or, in some instances, where they did not like to show they had lost them, had even exchanged their own plates with others belonging to comrades. He proposed, therefore, that all soldiers should be required to carry these tablets in peace time as well as in war, so that the men might become familiar with them and their true nature. In Germany the identification metal tablet does not bear the name of the wearer, but only indications of his regiment, company, and matricule number, and thus, in the annual changes that take place among the men in the ranks of the army, fresh identification plates are not necessary, and a considerable saving in expense is effected. Professor Gurlt exhibited to the Assembly a rather elaborate substitute for this simple identification plate, the invention of the secretary of the Bavarian Legation at Berlin.

Remarks on the subject embraced by question No. 11.

Identification tablets.

It consisted of a neat and light flat tin case, about two inches square, intended to be carried by a riband worn round the neck under the man's shirt, and containing a small paper packet, on which was inscribed a number of particulars regarding the wearer, such as are given in the medical history sheet of the English soldier, together with a place for a small photographic portrait, in case it might be thought advisable to introduce it. Such a contrivance would obviously entail a greater cost than any Government would be likely to incur for the purpose, and would be no more safe against misuse or dishonest removal, would perhaps be less safe, than the simple plates hitherto employed for the purpose. None of the proposed methods of identification mentioned at the Congress appeared to be completely reliable or free from objections, and ultimately the Conference simply voted the two following general resolutions on the subject:—

No method of identification absolutely trustworthy.

1. "Each National Aid Committee ought, by all the means in its power, to procure the adoption of a mark of identification for use in the army of its country."

Resolution of Conference on question No. 11.

2. "The Conference expresses its desire that commanders of belligerent armies will make known, by proclamation or otherwise, to the people at the seat of war that those who spoil or mutilate the wounded or dead will be duly punished."

The subject next discussed was the one embodied in the question numbered 18, and introduced by the Central Committee of Berlin. It was the following:—

Question No. 18.

No. 18. "What measures have been or should be taken by the aid societies to prevent abuse of the conventional sign of the Red Cross on a white ground, as well in time of peace as in time of war?"

Abuse of the sign of the Red Cross.

A strong feeling of indignation was evinced by the members of the Conference against the persons who in numerous instances, either for illegal or commercial purposes, had dishonestly employed the special marks of the Red Cross Societies. Attention has been called to instances of abuse of the Red Cross sign by persons who were using it as affording means for the mere gratification of curiosity on fields of battle, as well as by others who were carrying out various personal objects which the adoption of this sign of international charity enabled them to do with greater facility. Charges had been made of the Red Cross brassard having been used to enable the wearers to carry out nefarious work as spies. The Red Cross on a white ground, moreover, has been largely used as a conspicuous mark by trading persons without any authority, obviously to induce the public to purchase their productions under the belief that they had been recommended for use by the Red Cross institutions. This distinguishing sign, which was specially authorised under the Geneva Convention of 1864, had been also used under various other false pretences. It was admitted to be a matter of great difficulty, even if it were at all possible, to put a stop to this scandalous misappropriation of the Red Cross insignia by legal means of an ordinary kind, and the meeting, therefore, confined its resolution on the question to the following general expression of its views upon it.

Resolution of Conference on question No. 18.

"The Conference expresses an earnest desire that energetic measures, legislative
" or otherwise by enactments of similar force, should be taken in every country
" to prevent abuses of the conventional sign of the Red Cross on a white
" ground, not only in time of war, but also in time of peace."

Question No. 9.

The Conference next undertook the consideration of question No. 9, which had been submitted by the Central Committee of Berlin. This question was put in the following terms:—"In what way, in default of an international
" convention on the point, can the assistance of military surgeons at the
" disposal of non-belligerent powers be obtained for service on a theatre of
" war in the field and stationary hospitals of the belligerent powers"?

Deficiency of surgical aid in time of war.

In the course of the discussion which followed it was sufficiently apparent that there had been on many occasions during the great continental wars of the last 20 years a painful deficiency of surgeons. Such deficiencies are inevitable, however full and well selected the army medical establishments may be, especially if vast numbers of troops are opposed to each other; when battles follow each other in quick succession, multiplying by repetition the needs for attendance on the wounded; or when in single actions of large dimensions, the principal struggles are concentrated on particular points, and as a necessary result great numbers of wounded are accumulated at them.

Neutral surgical aid during the Franco-German war.

During the Franco-German war of 1870–71 the aid of neutral foreign surgeons was formally accepted by both belligerents. British military surgeons attached to the National Aid Society's Ambulance and British and American civil surgeons and hospital attendants of the Anglo-American Ambulance acted in certain parts of the scene of conflict, some with the German, others with the French forces engaged, while Swiss and Belgian surgeons also took part, and assisted in the attendance on the wounded of the two armies in other situations in the course of the war. This exceptional aid Professor Gurlt, of Berlin, who presented a report on the question, thought should be subjected to certain rules, and the most essential of these regulations he embodied in a series of conclusions, which he submitted to the Conference for adoption. They were subjected to a long scrutiny, and ultimately an amendment proposed by Count Sérurier, of Paris, was carried by a majority of votes. Some members abstained from voting, as the amendment appeared to trench upon the Convention of Geneva of 1864, the terms of which, it had been stated in the preliminary arrangements for the Conference, were on no account to be modified or interfered with. The majority did not consider that the amendment could be regarded as an endeavour to change the terms of the Convention, since it only expressed a wish that an article might be added to it, and this article in no respect affected any of the articles that had already received assent. The terms of Count Sérurier's were almost identical with those of a resolution which had been adopted at Berlin in 1869; they were as follows:—

Resolution voted on the above question.

"The Conference renews the wish expressed at Berlin in 1869 that the "governments who are signatories to the Geneva Convention of 1864 should "be pleased to come to an agreement on the following proposition, and that "they should base on it an additional article to the Convention." "In case "of war non-belligerent states will put at the disposal of the belligerents for "the purpose of taking care of the wounded in the hospitals such army "surgeons as they can spare without causing neglect of their own hospital "requirements. These delegate surgeons shall be placed under the orders of "the belligerent army to which they shall be attached."

Remarks on the resolution voted with regard to question No. 9.

It did not appear to me that any objection could exist to joining in the expression of the wish embodied in the foregoing resolution, although it seemed little likely that it could be carried into effect to any appreciable extent, owing to the usually restricted numbers of the surgeons and hospital attendants maintained in armies. Peace military medical establishments can rarely exist in much larger proportions than are actually required for the ordinary hospital service and professional needs of the armies of which they form part. When a limited number of military surgeons and hospital attendants can be spared, as was done in the instance of the so-called "Woolwich Ambulance" sent to France during the Franco-German war at the cost of the British National Aid Society, the benefit is mutual; the surgeons and men of the Medical Staff Corps gain practical experience of a kind that can only be acquired under circumstances of actual warfare, and are rendered proportionally more efficient servants of the state to which they belong; while the services which they render to the sick and wounded of the belligerents are of undoubted value, as they were acknowledged to be both by the French and German military authorities on the occasion just referred to.

Remaining questions omitted from discussion owing to want of time.

When the discussion on question No. 9 had been brought to a close, the time at the disposal of the Conference was exhausted, and there was no opportunity for entering upon the other questions contained in the programme. The reports which had been prepared on these omitted questions the President stated would be printed when the proceedings of the Conference were printed. The Conference was then formally closed with the usual expressions of thanks to the officers under whose presidency and assistance the proceedings had been conducted.

The next Conference to be held at Carlsruhe.

The choice of the place and time for the next Conference of the Central National Aid Societies had been referred by the General Assembly to a committee of delegates, and, at a meeting after the conclusion of the discussions, this committee decided that the contemplated reunion should take place in 1886, or at latest in 1887, at Carlsruhe.

Reports on the questions not brought under discussion.

Reports had been prepared on the questions which, as it happened, there was no time for discussing at the meeting, and although these only embodied the personal opinions of the reporters, which might have been materially modified had there been an opportunity of deliberating upon them, an arrangement was made that they should be printed with the general minutes of the proceedings of the Conference. They will thus be available for perusal and consideration until an occasion may occur of bringing them forward at a future meeting of the Red Cross Societies for general discussion.

Some subjects not included in the preliminary programme considered at the Conference.

On the proposal of certain members of the Conference, and with the assent of the Assembly, a few subjects that were not included in the programme were submitted for the consideration of the meeting, and resolutions were adopted regarding them by vote. They were seven in number, and were as follows:—

Relations of the International Committee to the National Red Cross Committees.

The first was an expression of confidence in the International Committee by which the Conference had been organised, and it took precedence of all the other proceedings. It was couched in the following terms:—

"The Conference, before commencing its deliberations, expresses its warm thanks and lively gratitude to the International Committee of Geneva for the admirable activity it has displayed at the head of the Red Cross movement during the last 15 years, the great results of which are shown in the modest report it has presented to the meeting on the subject. The Conference looks with perfect confidence to the continued activity of the International Committee, whose work now extends over both hemispheres of the globe. The Conference gives the Committee its entire support, and is ready to entertain favourably any wishes it may put forward."

The use of movable electric light on fields of action at night.

2. The next resolution had reference to the use of electric lighting for assisting in the relief of wounded at night time on fields of action. It was as follows :—

"The experiments made at Vienna in 1883, at Paris in May 1884, at Aldershot in July 1884, and at Geneva in September 1884, with a movable electric light wagon, have established the possibility of lighting a large battle field at night time sufficiently to enable the wounded to be removed and the dead to be buried after verifying their identity. The utility of such an appliance being beyond dispute, the Conference expresses the wish that the electric light may be turned to practical account in future wars on all occasions when military circumstances will admit its employment."

Antiseptic surgical treatment of the wounded in time of war.

3. The third resolution had reference to the employment of antiseptic dressings in the treatment of the wounded among troops on active service. It was thus expressed :—

"The Conference records its desire that antiseptic dressings may be employed as the rule in the surgical service of all armies in the field, as well as in the service of all Red Cross Societies. It is desirable that all hospital attendants should be instructed in the method of antiseptic treatment in peace time."

4. The fourth resolution had reference to Miss Barton, who, as President of the American Red Cross Society, had been deputed by the United States' Government to the Conference. It was through the persevering representations of this lady that the United States had been chiefly led to give its adhesion to the Geneva Convention of 1864. The resolution referred to was briefly as follows :—

"The Conference declares that Miss Clara Barton has deserved well of humanity in obtaining the accession of the United States of America to the Geneva Convention of 1864."

Prize offered by the Empress of Germany.

5. The fifth resolution concerned the prize offered by Her Majesty the Empress of Germany, and ran thus :—

"The Conference decides that the sum of 5,000 francs and the gold medal which Her Majesty the Empress of Germany and Queen of Prussia has deigned to place at its disposal shall be competed for as a prize for the best type-model of a movable barrack ambulance (hut field-hospital ").

"The nomination of a special committee to prepare the programme of the competition, and to adjudicate upon it, is referred to the International Committee. The programme should be published before the 1st of December 1884."

Place and time for the next Conference.

6. This resolution concerned the time and next place of meeting of the National Aid Societies. As mentioned previously in this report the committee of delegates of the Red Cross Societies, to whom the matter was referred, fixed on the city of Carlsruhe as the place, and the year 1886 or at latest 1887, for the time of the meeting.

Erection of a commemorative statue at Geneva.

7. The next resolution had reference to the erection of a statue, emblematical of the Red Cross movement at Geneva. A model of the proposed statue was exhibited in the hall adjoining the theatre in which the Conferences were held. The text of this resolution was as follows :—

"The third International Conference, held on the occasion of the 20th anniversary of the Geneva Convention of 1864, in the city in which the work of the Red Cross had its birth, and where it was sanctioned by international treaty, fully approves of the idea of a commemorative monument being erected at Geneva, and puts forth the wish that the Central Committees of all nations will concur in the execution of a monument after the model of M. Kissling, member of the Conference."

Social reunions of the members of the Conference.

In addition to the regular sittings of the Conference there were several friendly reunions of large numbers of the members. One of these took place on the Sunday evening preceding the opening of the Conference in the rooms of the Society of Arts at the Athénée, a handsome building, containing a collection of paintings and an industrial museum, presented to the city by a private gentleman, M. Eynard. Others took place at the villas of M. Moynier, the President, and of M. Ador, the Secretary General of the Conference. An entertainment was also given to the members of the Conference by the International Committee at the Palais Eynard.

Address on the legal aspects of the Geneva Convention of 1864.

German Samaritan schools.

An address on the legal and humanitarian aspects of the Geneva Convention of 1864 was read by M. Lacointa, professor of international law at the Catholic University of Paris. This thesis has been separately printed. A paper by Professor Esmarch, of Kiel, on the Samaritan schools which he has introduced into Germany was read by Dr. Appia, in the unavoidable absence of Professor Esmarch himself.

Professor Esmarch's Samaritan schools.

These schools were formed by Dr. Esmarch with a view of teaching persons of both sexes the proper means of administering early help to injured persons in anticipation of the arrival of surgeons. It was after witnessing in England the practical exercises by some of the classes of persons who had been instructed under the auspices of the St. John's Ambulance Association, that Dr. Esmarch, on his return to Kiel, undertook the formation of similar classes at that city. They at first were opposed by some of the medical faculty, but in the course of the two years since their foundation they have spread over the whole of Germany. The instruction has been given to vast numbers of railway employés, and of workmen in the shipbuilding yards of the North Sea and Baltic, and has already been attended with many beneficial results. The course of instruction and mode of imparting it by lectures and practical demonstrations were explained in the paper. They appeared very similar to the courses of instruction given to the St. John's Ambulance classes in England.

Practical demonstrations during the Conferences.

In addition to the demonstrations of the sanitary matériel of the Swiss military service by Colonel Ziegler, surgeon in chief of the Swiss army, and of the use of movable electric wagons in enabling the wounded to be attended to and removed from fields of battles at night time when military circumstances permit the employment of electric light, there was a practical demonstration by Dr. Port, of Munich, of the means of improvising articles and appliances necessary for affording aid to the wounded in time of war. As this demonstration appeared to be of special interest, I propose to describe it at some length.

Exhibition of Improvised Ambulance Equipment in the Riding School of the Plain-Palais Barracks at Geneva.

Usefulness of this demonstration by Dr. Port.

The occasion of so many representatives of different countries having met together to discuss subjects connected with military medical matters was taken advantage of by Dr. Port, Oberstabsarzt in the Bavarian Army, to give a demonstration on a large scale of improvised hospital materials and appliances for use in time of war. This appeared to me to be a practically useful exhibition, not merely so far as the particular objects exhibited were concerned, but also as tending to develop a habit of thought for turning to account simple things as substitutes for systematic means and appliances when the circumstances of field service lead to the latter not being available for use or not available in sufficient amount.

Elaborate equipment and delicate surgical appliances out of place in field hospitals.

It is certainly the case that surgeons are occasionally met with who expect to have in the field the same surgical appliances, instruments, and materials that are in use in permanently established hospitals, when, in many instances, it would simply be wasteful to supply them. Some of these instruments and appliances are very costly even in the limited numbers that suffice for use in permanent hospitals, but this cost would become enormously multiplied if such supplies of them were provided as would be adequate to meet the demands of the large number of hospitals, moveable and stationary, that may have to be established when armies are proceeding on active service.

But it is not merely a question of outlay of money; many of the appliances and instruments that are used with great advantage in fixed buildings are of such a mechanical construction, or of such qualities, that they require special arrangements for their care and protection against dust and exposure to weather, and these safeguards can rarely be sufficiently afforded under conditions of field service. On this account many fixed hospital appliances and delicate instruments, if they were supplied to field hospitals, would be found to be of little service at the very time they were required for use. Moreover, however varied and ample the supply of field hospital equipment may be, all experience has shown such unexpected circumstances occur in campaigns that medical officers may suddenly find themselves deprived of it, or of important parts of it, at any moment. From a consideration of all these points Dr. Port's demonstration appeared to be of much value, for it showed that so long as the guiding principles for suitably dealing with the occurrences incidental to active service are thoroughly understood, these principles may often be carried out in practice with the aid of very simple appliances as satisfactorily, so far as the conditions of active service in the field will allow, as if others of elaborate and intricate construction had been available and employed instead of them.

Simple surgical appliances often the most efficient on field service.

Dr. Port's address on the purpose of the exhibition.

The articles exhibited by Dr. Port were disposed in the large riding school of some extensive barracks on the outskirts of Geneva, the barrack of Plainpalais. According to arrangements the members of the Conferences attended at this barrack in the afternoon of the 3rd of September and, as soon as the Assembly was complete, Dr. Port delivered an address in French on the origin and purpose of the exposition. After reviewing the progress that had hitherto been made on various occasions and in different countries in the art of improvising in the field means of assistance for the wounded, he pointed out that, although it must be regarded as an important resource in military medical service, the subject of improvisation was one that was likely to be regarded with little favour by governments and military surgeons in general, and could hardly be expected to be taken up in official quarters. The impulse that of late had been given to the subject started from the International Aid Society of Geneva, whose members had called special attention to it by offering prizes open to public competition for the most practical essays upon it.*

This offer had led to active efforts being made in several quarters for devising means of help which might be susceptible of ready improvisation at the time of need, and the present exposition of objects, organized under the direction of the International Red Cross Committee of Geneva, was intended to attract further attention to the subject. He asserted that many of the improvised objects exhibited, notwithstanding their simple and temporary appearance, were quite equal in their effects in competent hands to their official congeners of a more solid and permanent character.

Application of the term "improvisation."

Improvisation of ambulance materiel an art to be acquired.

In using the term "improvisation" Dr. Port did not apply it to the mere off-hand employment of one article for another,—a couple of bayonets to act as splints, for example; but he regarded it as meaning the art of rapidly adapting objects to sanitary purposes which are not in their simple state fitted for them, and in this way extemporising any means of assistance that patients might require. He spoke of it as an art of sufficient importance to warrant its being systematically acquired, because experience had proved that neither the official provision made nor the assistance afforded by aid societies had been adequate to supply all the means of help that the wounded have required in such wars as have taken place in Europe of late years, and he asserted that there must always be gaps in the official preparations which have to be filled up, when pressure arises, by improvised arrangements. The infirmiers of the Army Hospital Corps should, therefore, be specially instructed in the practice of improvisation. The art of improvisation should form part of their education to prepare them for war service, so that they may be able to assist rapidly and expertly the surgeons who, at such a time, will not have the necessary leisure for themselves improvising the special things that are likely to be required for their patients, whether on account of the inadequacy of the official supplies, or from accidental needs consequent on unexpected events which have caused them to be separated from the supplies of equipment which were officially furnished for the purpose.

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* In December 1881 the International Committee of the Red Cross at Geneva offered three prizes to open competition on the general subject of "The art of improvising means for assist-" ing the sick and wounded in war." The three prizes corresponded with three divisions of the subject, viz.:—1. Means of treatment; 2. Means of transport; and 3. Means of hospitalization. The members of the jury to adjudicate the prizes were Professors Le Fort of Paris, Gurlt of Berlin, and A. Socin of Bâle, and the two prizes for the first two divisions were unanimously awarded to Oberstabsarzt Dr. Port. In consideration of his gaining these prizes Dr. Port was promoted from Oberstabsarzt of the 2nd Class to Oberstabsarzt of the 1st Class in the German Military Medical Service. The essays to which prizes were awarded have been published in a small volume under the title of "Taschenbuch der Feldärztlichen Improvisationstechnick" (Pocket Book of Practical Improvisation in Field Surgery), Von Dr. J. Port, &c. Stuttgart, Ferd. Yorke, 1884. Small octavo, 304 pages. The volume is illustrated by 188 woodcuts.

Training hospital attendants in the art of improvisation.

Dr. Port's views respecting the proper training of the men of the sanitäts detachments or bearer companies, are peculiar in some respects, and would not be accepted by most military surgeons without considerable reserve. He stated that he considered a complete reform necessary in the technical teaching and equipment of the sanitary personnel. The time devoted to instruction on matters connected with the first aid to wounded, such as applying splints to broken limbs, dressing wounds, stopping bleeding, and other such matters, he regarded as time in a great degree wasted; these professional duties should be done by surgeons, and not by half informed men as the bearers and sick attendants must be. What would be far more practical and more useful would, in his opinion, be to teach them a certain amount of carpentering, joining, soldering, and smith's work, with a view to making them able to put together stretchers, field beds, hospital appliances, &c., in short, to assist by fashioning any mechanical contrivance that the designs of the surgeons might require for the help of their patients. Hence, the equipment of these men should not be dressing cases containing instruments for dealing with wounds, but such articles as nails, cord, a saw, shears, and a few selected tools that would be serviceable for the purposes above-mentioned.

Remarks on Dr. Port's views.

It may be readily understood that if an army in campaigning is very badly provided with necessary hospital equipments, suffering from deficiencies in the means of carrying the wounded, in providing them with cover, and in many of the ordinary appliances and utensils required for their care and comfort, attendants armed with the knowledge which Dr. Port advocates would be most valuable aids to the surgeons in providing means essential to the welfare of their patients; but with any army in which the necessary provision in these respects has been made, and under the ordinary circumstances of warfare in which the means provided may be well expected to be at hand when required, excepting under very exceptional circumstances, it would hardly be necessary to impart such a technical education as Dr. Port advocated. To most comparatively uneducated men it would require an apprenticeship occupying a considerable time before they would become expert workmen enough in the various directions named to be of much value. On the other hand, as wounded men are often widely scattered after actions, and as the surgeons are relatively few to the number of patients requiring assistance, and would be most advantageously occupied at the dressing stations and field hospitals, it seems obvious that the men who have to search for, pick up, and carry the wounded to the dressing stations are very likely to need, in the interest of a considerable proportion of the patients, a certain amount of acquaintance with the methods of affording such preliminary aid as can be given in the absence of surgeons before the removal of the patients is commenced. The more mechanical ability men of sanitary detachments and sick attendants may have, the more useful they will undoubtedly be in various emergencies that may arise, but remembering that the time that can be spared for the training of the men of medical staff corps before they are sent to duty in hospitals is a limited one, from considerations of expense and for other reasons, the system of training commonly pursued seems to be the only one suitable for meeting the general wants of military service.

ARTICLES CONTAINED IN THE EXPOSITION.

Classification of the improvised articles of ambulance equipment exhibited by Dr. Port.

The improvised contrivances exhibited by Dr. Port, the special features of which he demonstrated after the delivery of his discourse, were very various in kind, and occupied the greater part of the large riding school in which they were exhibited. For convenience of reference they may be divided under the three following heads:—

I. Improvised means of carriage of sick and wounded men;
II. Improvised means of dressing wounds in the field; and
III. Improvised means of hospitalisation.

Section I.—Improvised Means of Carriage of Patients.

Subdivisions of section I.

The improvised means of transport included various appliances to assist attendants in the carriage of patients either by hand without or with stretchers, others to form supports on the backs of bât-animals, and others to be drawn by transport animals either in the form of sledges without wheels, or so arranged as to enable patients to be carried with lessened shock and roughness on ordinary country wagons without springs.

Improvised stretchers and field-beds.

A stretcher made by a couple of rough poles cut from saplings of suitable dimensions, and partially shaped, with traverses formed by two forked branches cut from trees at each end of the stretcher, the forked ends serving as feet, showed how either a stretcher or field bed could be quickly improvised from these materials in case of need. The ends of the side poles were brought as high as their sizes would admit into the forks of the traverses on either side, leaving sufficient of the poles projecting to form handles and were then securely lashed by cords cr withes to the cross-pieces, so as to unite the whole into a frame. A great coat was tied across as a substitute for the usual canvas bottom, but various other modes of forming the bed part of stretchers were exhibited. In case of emergency, and no rope or cordage being available, a simple mode of intertwining three strips of linen of about the width of an ordinary roller bandage, and thus forming a sufficiently strong substitute for a rope, was demonstrated. A rope thus made, by being wound across a rough stretcher frame from head to foot in various fashions and then made fast, was strong enough to form the bed for supporting a patient in case of canvas not being available for the purpose. An important point in forming an improvised rope of the kind as regards strength and resistance, Dr. Port showed, was that the bands must not be *plaited* but must be ***twisted***. By tearing up sheets into strips and then twisting and interlacing them so as to form a sort of rope prisoners have effected their escape from rooms, in many instances at a considerable height from the ground; a rope thus made affording resistance enough when secured at one end to bear the weight of the body of a man in his descent.

Improvised cords formed of strips of linen.

Straw bands not to be plaited.

In making bands of straw for tying together splints or other articles in the absence of regular materials for the purpose increased strength of resistance is equally gained by twisting the straw instead of plaiting it as is often done.

Other means of extemporaneous hand-conveyances.

Several of the means of extemporaneous hand-carriage by such contrivances as stretchers made of combinations of rifles and articles of the soldiers' uniform clothing, great coats, tunics, braces, &c., various examples of which are figured in the late Surgeon Major Porter's "Surgeon's Pocket Book," also formed part of the collection exhibited by Dr. Port.

Two-horse litters and Indian travées.

Two of the most noticeable examples of improvised transport were the two-horse litters suited for use in narrow ravines and over rough and broken ground not admitting the employment of wheeled conveyances; and, secondly. the inclined joist-space, or Indian travée, a litter drawn by one horse. I had not seen these forms of conveyances practically tried before, though familiar with the construction of various kinds from the excellent descriptions and drawings of them given in the well-known report of the late Dr. Otis "On "the Transport of Sick and Wounded on Pack Animals." The improvised examples exhibited by Dr. Port appeared to afford all the advantages that could be obtained from such conveyances had they been constructed of the best workmanship.

The improvised two-horse litter shown by Dr. Port.

The two-horse litter was composed of two branches about 6 yards long, roughly cut and trimmed to answer the purpose of side poles. Some shorter cross-pieces were secured to these poles at distances about 6 feet apart from each other towards the middle of the two poles, and interlaced cordage was fastened over the space within the two cross-pieces and adjoining parts of the side poles to form a bed or support for a patient. The pole ends were secured in the loops of strong bands which were attached to the harness of two horses, the animals being placed one in front of the other, and the litter, therefore, in line between them. This conveyance was tried with two horses in the barrack drill ground and was shown to be a practicable form of conveyance, which might be turned to account under occasional circumstances with advantage. Of course the loss of power in employing two animals and probably two men to lead them for the carriage of a single patient was obvious. The two horses act in the places of two bearers with an ordinary stretcher. But a reference to the work of Dr. Otis will show that in the warfare carried on between the forces of the United States on their Indian frontiers, this form of carriage has sometimes proved to be the best available means of removing the wounded. The use of a hinged or portable form of conveyance of this nature was sanctioned in the Revised Regulations for the Army of the United States for the year 1861.

Improvised Indian travée.

The travée one-horse litter is a kind of conveyance which is also very easily improvised where there are trees with branches sufficiently long and straight enough for the purpose. The conveyance at the first aspect presents a very rude and incomplete appearance, and hardly conveys the idea that it could be adapted for use as an ambulance conveyance under any circumstances. Yet Dr. Otis has quoted sufficient reports from medical officers of the United States army to show that, not only under the management of the American Indians, but also in the hands of the United States army surgeons, the travée-litter has frequently proved of great advantage in the transport of wounded men and officers, and that, on the whole, the transport has been effected with comparative comfort, and with no more jolts and concussions than are ordinarily met with in transport by wheeled vehicles. One United States army surgeon, from a large experience in the war with the Sioux Indians, has reported that, unless on very good roads, he considered the travée preferable to ambulance wagons. Yet it only consists of two pieces of wood, from 5 to 6 feet in length, cut from a young pine tree, two ends of these poles being sustained by a horse in front, the other two ends being allowed to trail on the ground. The litter is formed by the connexion of two cross-pieces, and an interlacing of withes or cordage covered with a blanket or overlaid with canvas sacking. The patient lies in an inclined position on this litter with the head upward near to the horse, or two patients may be accommodated on it lying side by side. One man only is required with this conveyance to lead the horse. This impromptu sort of horse-sledge or drag-litter was tried on the drill-ground of the barrack, where it answered well enough, the yielding of the litter from the elasticity of the long side poles sufficing to neutralise, in a great degree, any casual shocks that might happen to the conveyance. Considering how readily a litter of this kind may be constructed from primitive materials usually at hand, and the long distances a man might be conveyed on it under circumstances where other conveyances may not be obtainable, it is useful to be aware of its nature and construction, and to have a knowledge that it has been already used on particular occasions with very satisfactory results. The ground of the barrack square was comparatively level, but the reports of United States army surgeons, quoted by Dr. Otis, show that similar litters have been used for the conveyance of patients over ordinary ground, abounding with ruts and irregularities, with very satisfactory results.

Impromptu conversion of country wagons into spring-wagons.

Norwegian method of conversion.

Two country wagons adapted for the carriage of patients by temporary additions of rough and ready materials so applied as to act as springs were exhibited. The most noticeable of these was a springless araba, or country wagon, arranged for carrying two sick or severely wounded patients on stretchers, according to the system, a little modified, of Surgeon-Major Smith of the Norwegian army. A model of a country hay wagon, altered on this plan, was exhibited at the Brussels Exhibition of 1876, and in the conjoint report on that exhibition by Colonel Brackenbury, Major Kemmiss, and myself, a short description, and illustrative drawings, plan, and elevation of the system were given. (See No. $\frac{12693}{838}$. "Report on the appliances for Aid to the Sick "and Wounded in War, exhibited in the Brussels Exhibition of 1876," printed by Eyre and Spottiswoode, 1876, p. 27 and plate VI.). There is also a model of this extemporised spring wagon (No. 1,309) among the models in the Museum of Military Surgery at Netley. This model was specially constructed to show the manner in which springless country wagons may be utilised as spring wagons according to the plan of Surgeon-Major Smith of Christiania. It seems needless, therefore, to refer at greater length to the full-sized pattern exhibited at Geneva by Dr. Port.

Austrian method of conversion.

Another mode of converting a springless country wagon into a spring wagon for the conveyance of patients, requiring a recumbent position, on stretchers described by Dr. Port was new to me. It appears to be of Austrian origin, and to be older than the Norwegian plan, to which it bears a general resemblance in principle, though differing in details. According to this plan two pieces of wood are laid across the floor of a hay wagon immediately over and in line with the two axles of the vehicle. Two longitudinal longer pieces of wood are laid upon these cross-pieces longitudinally, one on each side; and across these again, midway in position between the two floor cross-pieces, is placed a third cross-piece, designed to act as a fulcrum to the pieces of wood which are to form the springs. These latter pieces or springs are four in number, two on each side, and crossing each other somewhat in the manner of the letter X. Two pairs of young birch trees, or of any other kind of flexible wood of sufficient length, are selected for the purpose. Each of these pieces, two being placed on either side, is fastened by some telegraph wire, or is securely tied by rope, at one end, to the lower part of the ladder of the wagon, just over the axle, in a slanting direction so as to cross the spring piece on the same side. The upper ends of these pieces are left free. In crossing each other these flexible pieces of wood are caused to rest on the middle cross-piece of timber above the floor of the wagon, which is thus converted into a fulcrum against which the spring pieces act when their free ends are pressed downwards. The two free ends of the spring pieces at the head of the wagon, and the other two at the tail of the wagon, are respectively connected by pieces of wood being lashed to them, and thus a spring support is formed, on which two or more stretchers can be laid according to the width of the wagon. The free elastic ends of the spring pieces are restrained from springing up too high by being passed within a ring of rope, which is also made to encircle the fixed end of the adjoining spring piece below. A description of this contrivance, together with an explanatory drawing in illustration of it, is given in the "*Deutsche Militairärzliche Zeitschrift*" of 1877, page 436, in an article written by Staff Surgeon Dr. Mühlvenzl of Vienna. In a country where agricultural hay wagons of a suitable form are in abundance, a contrivance of this kind might be employed with advantage in lessening the shocks, to which patients would be subjected if they had to be carried in such wagons without any additions of the sort. I have had a model of this kind of conveyance put together, and it is now deposited in the Military Surgery Museum at Netley.

The uses of straw loosely laid on the floor of a wagon, and of hay or similar materials placed in sacks, and laid on the floor of a springless cart, for lessening the shocks liable to be met with in the transport of patients over rough roads, were also shown.

SECTION 2.—IMPROVISED MEANS OF DRESSING WOUNDS IN THE FIELD.

Substitutes for splints.

The articles shown in this section chiefly concerned improvised arrangements for dealing with wounded men at dressing stations and field hospitals, but also had reference to their protection during their carriage from the field to the dressing stations, and from the latter to the field hospitals. Under the head of protection during transport may be classed the various substitutes for regular splints for the support of limbs disabled by fractures of bone. Some of the improvised means shown are familiar to most students of works on military field service. Such, for example, are the isolated bundles of straw tied together, and cut to suitable lengths according to the site of fracture, for splints, or smaller bundles, fastened together side by side so as to form sufficiently firm mats, as it were, in which a broken limb may be enveloped and supported; or mixtures of straw, and strips of wood, to effect the same purpose; or side bundles of straw rolled from either side in canvas or a piece of cloth, and so adapted to a broken limb; these various kinds of support, after application to a limb, merely being secured by strips of bandage, handkerchiefs, or other means of effecting a temporary fastening. Bark of soft woods, such as the bark of various species of pine, was shown to be suitable for acting as splints or general supports, in the same way as the straw splints, the bark being softened before removal from a tree by being beaten with a piece of wood in the shape of a mallet. Dr. Port referred to other kinds of

Improvised substitutes for splints.

substitutes for splints, besides the specimens which were shown in the collection, such as supports made of rushes in case straw was not available, or of willow rods joined together by cord, wire, or bands of iron; iron hoops taken from casks, straightened, and with holes punched in them where required; telegraph wire, easily broken at any points where a notch was made with a file; the tin cases used for carrying preserved provisions, the iron used in these articles being thin and easily cut into required shapes; and, in short, any articles that have been used in other ways and are not required for further use, and that by the exercise of a little ingenuity can be converted into the articles which are required for the service of patients. It seems evident that some simple tools are indispensable for cutting and working materials, such as iron hoops, into suitable lengths and shapes, besides those with which hospital attendants are usually furnished, but these can generally be borrowed from smiths or some of the other artificers in the field. In the absence of cord or rope or bandage for securing splints, Dr. Port showed that by a little manœuvring twisted straw or horsehair or animal gut, or strips of bark from small willow branches, could be made to answer the purpose of tying them together. The various means of arresting hœmorrhage from wounds in the absence of regular tourniquets for the purpose were also referred to. Most of these substitutes are familiar to military surgeons, and I need not describe them in this report.

A few simple tools indispensable.

Improvised means of fastening splints together.

Means of arresting bleeding.

Resinous dressing wounds.

Resinous Dressing of Wounds.—In consequence of the difficulty when there are a large number of wounded of washing wounds, Dr. Port suggested the application of ordinary resin, dissolved in olive oil, as a means of disinfecting wounds in the field instead of careful ablution. He considered that in this way microscopically minute organisms would be fixed, as it were, on the spot, and that it would be quite as effectual as any mode of disinfection, while it could be done with much more rapidity and without the necessity of all the basins and various other appliances required for washing purposes. The wound would be thus protected against infection from parts surrounding it, and the dressings should then be applied.

Starch paste in worn india-rubber cushions.

Substitutes for india-rubber cushions.

Starch Cushions in place of Air or Water Cushions.—The following contrivance appeared to me to be one that might now and then be turned to useful account. It is well known how apt air and water cushions made of india-rubber are to get unfit for service, either from parts of opposite surfaces of the cloth itself ceasing to be stuck together by the gum laid between them, when the impermeability of the two layers of material, of which such appliances are usually made, no longer exists, or from a minute opening or openings accidentally occurring somewhere in the cushion, or from deterioration of part of the surface owing to some of its texture having been rubbed away. Under any of these circumstances, if an attempt be made to employ them as air cushions the air escapes; or if, as water cushions, the water finds exit, wets the surrounding clothes, and the cushions are worse than useless. Dr. Port showed that under such conditions the usefulness of the cushion may frequently be restored if it be filled or partly filled with starch paste instead of water, and that no india-rubber cloth is even necessary for the purpose. A cushion made of ordinary canvas or sailcloth, over which boiled linseed oil has been sufficiently brushed, will answer the purpose of an india-rubber cushion, the starch does not escape, and the cushion has all the elasticity and yielding quality of the ordinary water cushion. The bag, however, must be sewn in a special way, so that the seams may be thoroughly secure against an escape of the contents. Having selected some canvas of suitable dimensions, it is first sewn into a pillow of the required size by careful outside hemming, or by any other plan which may keep the edges close and secure together. A tube, such as the neck cut from a bottle, or a hollow branch of the right size cut from an elder tree, is inserted, and secured by string at one of the angles of the bag, which is then soaked in water so that the interstices may become contracted. The superficial moisture is wiped off, and the surface of the bag is brushed over with linseed oil, and this coating is allowed to become dry. As soon as it is dry one or two coats of linseed oil are brushed over it at intervals, when it will be probably found that air may be blown into it and will not escape through the canvas unless pressure is made upon it. Each coating of oil should be allowed to dry before a fresh one is painted over it. As several days must elapse in preparing bags of this kind, Dr. Port states that they ought to be prepared in anticipation of their being required. When required for use hot starch or flour paste in a sufficiently liquid state must be poured into the bag through the tube, and on being sufficiently filled the tube must be closed by being corked and covered over securely by a piece of linen or canvas. The bag may be wrapped up with advantage in some folds of linen or flannel when it is placed under a patient. In order to prevent the starch from being decomposed and becoming liquified, it is desirable to add about 1 per cent. of corrosive sublimate. The proportion of starch to water is 1 to 10 parts.

Unstitched starch paste cushions.

Similar cushions may be made without stitching if some pitch or solid Emplastrum resinæ is available, in addition to some pieces of varnished canvas or oilcloth. This is cut into two squares of proper size and placed one above the other. The sides are then closed by the edges being folded and plastered together in the following manner. The end, which is intended to be placed under the body of the patient, and which, therefore, should not be hard or projecting, has a strip of tin included between the folds. One of the two open sides of the pillow may be secured by two strips of wood nailed together, the canvas edges closed tightly by pitch being laid flat between the two pieces of wood. The open end of the bag being held upright it is now filled with the starch paste, and the remaining edges are then secured by two pieces of wood in the same way as the opposite edges were.

Remarks on starch paste cushions.

I have tried some ordinary sheeting for making pillows of the kind mentioned, but have not found the material answer the purpose. Sailcloth of close texture, when properly varnished, will hold the starch without permitting any moisture to escape, but as it is doubtful whether such a material will often be met with in the field, and as the varnishing takes some time to prepare, several coats of the linseed oil being required with intervals for drying more or less prolonged, according to the state of the air and other circumstances, these contrivances can hardly be called extemporary or improvised substitutes for water cushions. Still a knowledge of the fact that starch or paste will sometimes answer when water alone will not may occasionally be turned to profitable account for hospital purposes.

Conversion of bottles into articles for hospital use.

As an illustration of the improvisation of articles of frequent use in hospitals, the various purposes to which an ordinary bottle, such as an empty wine or beer bottle, may be converted, by the exercise of a little mechanical ingenuity and practice, may be quoted. Dr. Port exhibited samples of the following conversions from wine bottles. A bottle was encircled by two bands of paper secured by string, and a space left between the bands, about half an inch or so in width. One end of a piece of cord was now fastened to the wheel of a wagon, and one turn of it was wound round the bottle in the space between the two bands of paper, while the other end of the cord was held in the hand or fastened round the waist of the operator. The bottle was now rapidly moved to-and-fro along the cord, so that it became heated from the friction in the circle over which the cord passed. Some cold water being poured over the part, the bottle split into two parts. The sharp edges of the tumbler-like lower part being rubbed down by a piece of sandstone, it could be applied to the mouth without any likelihood of hurting it, and a sufficiently convenient drinking vessel was provided.

Drinking glasses made from wine bottles.

Irrigator and filters made from wine bottles.

Another bottle was treated in a similar manner, and was divided a little above its base, so as to leave the bottle nearly of its ordinary size, but open at the bottom as well as at the neck. A sort of net formed by some pieces of cord was then put over it, so that the bottle could be suspended with the open space upwards and the neck opening looking downwards.

In this condition the bottle was converted either into an *irrigator* for the irrigation of wounds or inflamed surfaces, or into a *filter* for filtering water for drinking purposes.

Filters.

If it were intended for filtering purposes, a piece of linen was fastened over the smaller opening at the neck of the bottle, and this being thus covered, alternate layers of sand and sponge were laid within the bottle until it was about half filled. The bottle was then suspended over a convenient vessel for receiving the filtered water. The unfiltered water was poured in at the upper large opening from which the base of the bottle had been removed. In the absence of any other convenient vessel for receiving the filtered water, a second bottle standing on its base, but with the narrow neck removed, answered as a substitute.

Irrigators.

If intended for purposes of irrigation, the neck of the bottle was corked. A hole was made in the cork sufficient to admit an open piece of reed or quill, and to the projecting end of this tube some gum elastic or india-rubber tubing was fastened. The fluid being poured into the bottle at the open base, the flow could be regulated as in an ordinary irrigator. Two small pieces of wood, about 3 inches in length, fastened together at one end by some string, answered for controlling or stopping the flow of water through it. The india-rubber tubing could be employed as a syphon, the short end of the syphon being kept within the bottle by attaching a leaden bullet or piece of stone to it.

Conversion of wine bottles into lanterns.

The necks of wine bottles are often used in camps for holding candles instead of ordinary candlesticks. But if they are exposed to wind such candles are liable to be soon extinguished. Dr. Port showed how this could be avoided by converting the wine bottle into a lantern. The base of the bottle being removed, as in the instances of the filter and irrigator before mentioned, the bottom of the candle was placed in the neck inside the bottle instead of outside. The candle burns all the better if a current of air be allowed to pass through the bottle, and this was arranged by inserting a piece of reed by the side of the part of the candle in the neck, and so leaving a free passage that was not interfered with by the candle itself. Such a lantern could either be suspended or carried in the hand.

I have had some ordinary wine bottles cut in the manner described, and converted into the various articles just mentioned, and they are now added, as illustrations of improvisation, to the collection in the Museum of Military Surgery at Netley.

SECTION 3.—IMPROVED MEANS OF HOSPITALIZATION.

Hut hospitals.

Improvised Hut Hospitals.—Two samples of improved constructions for the accommodation of patients, when troops are stationary for a time in the course of a campaign—one for use in a temperate, the other for use in a cold, climate—were among the collection of objects exhibited. At first sight they appeared to be built at the cost of considerable labour, and hardly to come within the category of improvised articles. But Dr. Port stated that a hut hospital of the kind shown, capable of containing 10 sick men, could be built in the course of a day by three, or at most four, sick attendants, who had been taught the method of construction.

Construction of improvised hut hospitals.

Improved Hut on the Surface of the Ground.—One of the huts was built on the level of the gronnd, the other sunk about 3 feet below the surface. Each hut was constructed of a framework of poles formed from branches of suitable size, and was covered for protection against rain by plates of tin taken from the tin cases in which preserved provisions are issued in the field. The hut on the surface of the ground was rectangular in form, about 6 yards long, 2 yards high, and 3 yards wide. It contained four stretchers of the Swiss pattern to act as beds, two on each side, placed longitudinally. Along the centre of the hut, between the stretchers, was a free space or passage about 3 feet in width, and at each end of this passage a door. The floor consisted of a clayey soil well beaten, so as to render it hard and impermeable to dust and moisture. Instead of glass windows certain apertures were filled in by linen material rendered more or less transparent by a varnish of drying linseed oil. Although not permitting objects outside to be seen through them, they admitted sufficient light inside the hut. The doors were mere frames of wood, strengthened by some crossed pieces and covered by canvas. One side of the door frame was tied by three strips of osier to the adjoining upright post of the hut, and this portion of the frame of the doors being prolonged and somewhat pointed was made to rest in the hollow base of a bottle sunk with its neck downwards in the ground. The door turned for opening and shutting with ease on this pivot. The framework of the hut was covered both at the sides as well as on the roof with plates taken from tin cases, with the exception of the windows before mentioned, for light, and certain openings for ventilation.

Hut on the ground surface.

Sunk huts, their construction.

Sunk Improvised Hut.—The form of the sunk hut was different from that described, although there was a great similarity in the details of its construction. The principal difference between them was the fact that the floor was sunk about 3 feet from the surface, the ground being excavated to that depth, and that the sides of the roof rested directly upon the surface of the ground. The entrances were at each end, opposite to each other, a descent of three steps leading to the doors. A trench covered over by logs of wood was prepared for carrying off rain, and ventilation was provided for by an aspirating shaft opening at one side of the roof and a sort of windsail for the admission of air on the other. The interior of the hut, the floor, and the walls had a solid and neat appearance, being plastered over, as it were, with some loamy kind of earth. This sunk hut had a sufficiently snug aspect, so far as shelter and protection against the inclement weather of a cold climate in winter might be regarded, but experience has sufficiently proved that all such huts quickly lead to sickness when they are used as winter quarters for troops, and their unhealthiness would certainly be rendered much more speedily apparent if they were turned to use as hospital huts. Deficiency of aeration and draught, the closing up of the sides by outside earth, the position of the cots directly on the ground, the damp which from most soils is unavoidable, and the effects of the ground air on the inmates, especially when the hut is closed as night, must always render a prolonged stay in such dwellings very hazardous, even if they do not prove positively injurious at once.

Improvised cooking places and field ovens.

Cooking places and field ovens.—Several kinds of improvised cooking places and field ovens were exhibited. They were very similar in principles and in their construction to the improvised field ovens and cooking places described in the 2nd edition of the Soldier's Pocket Book for Field Service by Sir Garnet Wolseley, London, 1871, pp. 152, 153. Instead of the barrel recommended by Sir Garnet Wolseley as the framework of the interior of the oven, Dr. Port used a sort of basket made of osiers, and instead of the oven being entirely closed he introduced a small chimney at one end for ventilation made out of the tin boxes used for preserved provisions.

Tools required for improvised constructions.

Tools.—The only tools required by Dr. Port for making the huts, and all the various improvised articles shown in the exhibition, were stated to be a hammer, a hand saw, some strong scissors, a pair of pincers, a punch with corresponding matrix, and a strong piece of metal, for beating the tin sheeting and other things upon, in place of an anvil. A portion of an iron rail, or one of the iron collars which are used on railways, well answers the purpose of an anvil.

APPENDIX VII.

SANITARY, MEDICAL, AND OTHER NOTES AND MEMORANDA FOR THE INFORMATION OF THE PRINCIPAL MEDICAL, SANITARY, AND OTHER OFFICERS OF THE MEDICAL STAFF OF THE SUAKIN EXPEDITIONARY FORCE

Medical Department, War Office,
February 14, 1885.

For general information regarding the climate and medical topography of the country likely to be embraced within the sphere of operations during the forthcoming expedition, reference should be made to $\frac{40185,}{1450}$ "Report of the Egyptian Provinces of the Sudan, Red Sea, and Equator," compiled in the Intelligence Branch, Quartermaster-General's Department, Horse Guards.

The attention of the sanitary officer is specially directed to those sections of the Army Medical Regulations in which his responsibilities and duties are detailed, and to regulations bearing upon medical and sanitary work with an army in the field.

Hospitals.

The proposed hospital provision to be provided for the Suakin portion of the force will include, in addition to that already there,—

The Peninsular and Oriental s.s. "Ganges" as a floating hospital, capable of accommodating about 200, distributed as follows:—23 sick or wounded officers, 79 iron cots for the more seriously sick and wounded cases; the balance for ordinary cases of sickness or wounds. Punkahs are provided.

One base or general hospital, 300 beds, at Suakin, or at such place contiguous as may be deemed advisable.

This hospital will be composed of huts sent from England. Each hut will hold 12 men at 800 cubic feet; they are well ventilated, and have been, in several respects, specially adapted for a hot climate. Provision will be made locally for an officers' hospital if required. Punkahs will be provided. There will be two corrugated iron cook-houses, each supplied with three American kitcheners.

Two large tents (Tollet's system) similar to those used in the Tonquin expedition have also been provided.

Four field hospitals, new establishment, 100 beds each; in addition to stationary hospital for the lines of communication—that is, one hospital of 200 beds, divided into four sections if necessary.

The hospital at Suez, 200 beds, will be available, and can be utilized for the reception of cases. A staff of nurses for the base hospital, hospital ship, and Suez hospital—four to each respectively. Two bearer companies will also be available.

For further details in connexion with this subject *vide* page 15 *et seq.*

Climate.

The temperature in the hot months before the rains is stated to be 81 degrees to 86 degrees Fahrenheit, and the nights cool.

The rainy season, generally speaking, may be said to commence early in May, and continue, off and on, up to the end of October.

Immediately before, and at times during the rains, the heat is great and the air oppressively humid (fevers and dysentery may be expected).

In March the summer begins with drought, sultry nights, and very hot days. In May the afternoon temperature is 105·8 Fahrenheit.

Much inefficiency may fairly be anticipated to arise from the heat. It may be practicable to devise means for diminishing the intensity of the direct rays of the sun by increasing the thickness of tents or huts by a thatched roof made of any vegetable coarse fibre.

Diseases.

Experience has fully borne out the anticipations as to the character of the diseases to be encountered by an army constituted like our own. Diarrhœa and dysentery, enteric fever, heat fevers, heat exhaustion and sunstroke, are the principal general diseases; ophthalmia is the local disease, to which must, of course, be added the wounds and injuries incidental to warfare.

So-called Egyptian ophthalmia is a form of disease mainly attributable for its specificity to dirt, overcrowding, and flies; it is characterised by slight subjective symptoms in its initial stage, but is often preceded by the presence of raised vesicles or granules called "sago-grain granules," on the inside of the eyelids. In such cases exposure to dust, glare, or catarrh will induce an acute or even a purulent ophthalmia.

There are, however, two great factors in the production of sickness in an army in the field; one is fatigue, the other is insufficient nourishment. Climatic conditions are so far secondary to these that they may to a greater or less extent be overcome by avoidance of one, and ample provision against the other.

Diurnal Ranges of Temperature.

The great diurnal ranges of temperature are the main cause of diseases resulting from visceral congestion, and especially of congestion of the abdominal viscera—dysentery for example.

It is consequently of great importance to provide against the fall of temperature at sundown by attention to the clothing of the soldier; flannel belts should be worn, and no pains should be spared in encouraging soldiers to guard against sudden changes of temperature.

Diarrhœa and Enteric Fever.

It is a safe practical rule to treat all cases of diarrhœa attended with elevated temperature (fever) as enteric fever, until further observation has proved the contrary.

The events making up the medical history of an army in the field develop themselves with a regularity that is almost monotonous. Looseness of the bowels, under the name of camp diarrhœa, begins to be common almost as soon as the army takes the field. This is in a large number of cases compatible with apparently good health, and is doubtless attributable to the changed condition of life. Soon cases of fever appear, some of very brief duration, which are classified as heat fever, and some are attended with diarrhœa, marking the commencement of enteric fever in the force. The development of this disease and the proportions it will assume will be merely a question of time and circumstances. The disease embraces every variety, from the mildest to the severest types, from the so-called ambulant to the most fatal forms. The instances in which this fever occurs as a relapsing typhoid properly so-called, with an invasion fever period, followed by one or more febrile recurrences in which all the characteristic phenomena are repeated with intervals of apyrexia between them, are also not uncommon. The disease occasionally runs so mild a course as to resemble a febrile dyspepsia, and then the thermometry of the fever either fails to be recognised at all, or at any rate fails to be recorded with any degree of accuracy. On field service and in a rapid campaign this must be so, and it is as impossible to say when the disease began as to give anything like an accurate numerical expression of its extent. One thing is certain, however, that the tabulated number of admissions falls very far short of the number of cases that have really suffered from enteric fever in any campaign. During field service in the hot weather the exhaustion from the climatic heat is superadded to that of the fever heat attending the disease itself, and to the fatigue and exhaustion inseparable from a campaign, and those attacked have probably to be transported to a distance at a time when perfect rest is required, and forms an essential part of treatment. These are factors which must, one and all, swell the mortality from this disease. Still, there can be no doubt that the high ratio of mortality from enteric fever is mainly attributable to the fact that only the severer and more pronounced forms are diagnosed and returned as enteric fever under the circumstances of field service. It is to be borne in mind, too, that in actual practice in warm climates and under the conditions of field service this fever does not invariably conform to the temperature ranges which have been far too arbitrarily laid down by medical authors, for a fever may be non-conformable to such ranges, and yet be indubitably enteric fever.

There is an ample supply and variety of medical comforts suitable for these diseases, and some peptonized cocoa and milk has been sent out.

Water.

A preliminary examination of water for hygienic purposes may be made in half an hour, and the materials for it can be kept always at hand. It includes the colour, taste, odour, and clearness of the water; the organic matter is estimated by boiling with gold terchloride, the putrescent matter is tested by potassium permanganate, the chlorine by nitrate of silver, and the calcium by ammonium oxalate. A rough and rapid means of testing water is by the effect of the application to it of a concentrated solution of nitrate of silver and exposure to a bright sunlight; the rapidity and depth of the darkening can be compared with a sample of distilled water similarly treated. A careful inspection of the source of the water supply, or water-shed, should in no case be omitted. A very portable leather case furnished with necessary chemical tests has been supplied to the sanitary officer.

How far it may be practicable to sink wells, or to obtain good water through Norton's tubular wells, must be determined locally.

There will be two vessels at Suakin for distilling water, each capable of condensing 150 tons a day.

Troops marching from Suakin can be supplied with water from the shipping, which would be pure. Soldiers should be directed to fill their water bottles with cold tea, with the addition of some lime-juice and sugar, by which boiled water would be to some extent secured for them.

A large supply of alum has been sent out and specially marked for the purification of water, in view of its being practicable to serve out a fragment of it to the men; it is a very efficacious agent for ridding the water of suspended impurities, and its method of use is so simple as to put it within the reach of every one. The soldier should be instructed how to use it. Six grains of powdered alum to a gallon of water, Nile water for example, allowed to stand for 10 or 12 hours, will cause a subsidence of all suspended matters.

It is extremely difficult, if not impracticable, to overcome the taste and properties of brackish water, and its injurious effects. To some extent this may be done by using it exclusively for cooking or, at any rate, as a vehicle for oatmeal, milk, and other articles of food requiring salt; reserving the distilled water for drinking purposes. Freezing, or distillation are, of course, out of the question in the field.

Filters.

The soldier is supplied with a pocket filter; and it is easy to extemporise filters out of disused meat tins with the aid of clean sand and a piece of linen or flannel. Fragments of charcoal immersed in water containing organic matter are good purifiers, or the inside of a cask may be from time to time charred.

Bheesties.

A number of bheesties or water-carriers have been applied for from India, and will be available.

Supplies.

The country is capable of furnishing supplies—sheep and goats, vegetables &c., fruit (dates especially); but it is quite likely that the parts traversed by the troops may not be occupied by friendly tribes, and no dependence can therefore be placed upon local sources of supply.

Rations.

The field ration will consist of—

Bread	1¼ lb.	
or		
Biscuit	1 „	
Meat, fresh	1¼ „	
or		
Meat, preserved	1 „	
Tea	⅓ oz.	
Coffee	⅓ „	
Sugar	2¼ „	
Salt	½ „	
Pepper	$\frac{1}{36}$ „	
Potatoes or vegetables, fresh	12 „	
or		
Vegetables, compressed	1 „	
Jam and marmalade, occasional.		
Erbswurst, 2 oz., occasional.		
Lime-juice	½ „	when ordered.
Sugar	¼ „	
Rum	$\frac{1}{16}$ „	

A limited number of tins of preserved meat, gravy, vegetables, and pickles (mixed). It is requested that a record be kept of the suitability of these for field service.

Lime-Juice.

When preserved provisions are issued to troops a daily issue of lime-juice should be made, and this should invariably be done when potatoes or fresh vegetables are not supplied.

Medical Comforts.

A large supply of medical comforts, in great variety, and specially adapted to the nature of the service and to the character of the diseases likely to arise, will be available—

Brandy.
Port.
Champagne.
Claret.
Tarragona.
Ale (bottled).
Porter (bottled).
Milk, condensed.
Extract of meat.
Essence of beef.
Biscuit, hospital.
Arrowroot.
Sago,
Cocoa and milk.
„ peptonized, for cases of enteric fever, dysentery, &c.
Scotch barley.
Oatmeal.
Mustard.
Soups.
Fowl.
Preserved potatoes.
Pickles.
Jam and marmalade.

Moir and Sons rations (meat, gravy, vegetables, and pickles, mixed).

Ice.

The s.s. "Bulimba" and "Amethyst" can each furnish a large supply.

The hospital ship "Ganges" can furnish an ample supply for her own purposes.

SANITATION.

Port Medical Officer, and provision for Infectious Diseases.

A port medical officer (health officer) should be appointed to arrange for the medical care of crews; and as cases of infectious disease may arise on shipboard, some arrangement in anticipation must be made for their reception and treatment afloat.

Similar provision will be required for infectious diseases ashore, and for cases of small-pox should such occur. Cases of small-pox, whether arising among the military or mercantile marine, afloat or ashore, should be treated in an infectious hospital on land. There should be no apprehension of small-pox spreading in a well-vaccinated army.

Sanitary Police.

A sanitary police should be organised by the medical and other authorities of the respective divisions concerned, and native labour will be required for hospital conservancy at the base.

Infectious Diseases.

For all infectious diseases, or diseases ordinarily so designated, the grand rules are: Separate the sick, largely increase the superficial area for (that is, spread out) the remainder, and change the site; this will be especially required in the case of cholera.

There is no hygienic limit for the occupation of a camp, because so much must depend upon local conditions, but temporary camps on loose soil soon become fouled unless extreme care be taken. The practical rule is—when in doubt, move.

The surface area per tent for different densities of population per square mile is as follows:—

Square yards per tent.	Tents per acre.	Troops per acre at 12 men per tent.
50	96·8	1161·6
100	48·4	580·8
400	12·1	145·2
1,000	4·84	58·0

The number of troops to be placed in a given area must be determined by local circumstances, but the above is useful for forming a correct estimate as regards one very important element in sanitary state of camps, viz., density of population. It shows the extreme limits, ranging from great overcrowding to what would be an impracticable, though desirable amount of space.

Conservancy.

Latrines should be dug to leeward of, and from 50 to 100 yards at least distant from tents; narrow trenches for urinals from 20 to 25 yards from them (tents); cooking places with adjacent pits or trenches for moist refuse (slops) to be placed on the opposite flank.

Dry earth should invariably be used; in hospitals disinfectants also; and in cases of enteric fever, cholera, and dysentery, the disinfected stools should be buried separately, at a safe distance.

Some form of dry-earth system should be adopted for hospital buildings; tin cases or metal buckets, barrels, tubs or wooden cases (tarred), or tin-lined ammunition cases, with a pole and extemporised method of removal. A box of dry earth mixed with a disinfectant and supplied with a scoop will suffice for this system; the simpler the plan the better. Dry earth is a valuable deodorant, but its disinfecting power is small. About 3 lb. daily per head is required for efficient working.

Disposal of Refuse.

All refuse matters should be burnt; what cannot be burnt should be buried at a distance from the camp, some disinfectant being added to the earth covering such refuse.

Dead Animals, Disposal of.

Dead animals and offal should be buried; but a dead animal afloat may be sunk, for salt water is antiseptic and the fish will do the rest; the lungs of slaughtered animals, on floating slaughter-houses, should not be thrown overboard.

A dead mule or carcase should have the hind legs tied together and be dragged off to a distance and buried; but the leeward side of a sand-hill should be chosen, for if the windward side be used, the wind blows off the sand and uncovers the carcase, whereas to leeward the wind has the reverse effect. If there is not time to bury an animal, then bury the viscera and make a fire of any rubbish inside the animal's trunk; or if that cannot be done, stab the animal's body in several places to give free exit to gases and entrance to air.

Sanitation on the march and in Camp.

The ordinary shallow trench system should be followed for latrines for troops on the march; for standing camps the same system of shallow trenches, or preferably pits of four or five feet deep, should be adopted, small quantities of soil being added in thin layers to the ordure three times daily; trenches and pits should cease to be used when they reach within a foot or two respectively of the ground level; they should then be filled up with earth and disinfectants, and banked up to mark their site.

Men employed early or late, and on early morning marches.

In the event of an early morning march, or of men being employed late at night, a ration of hot cocoa and milk, coffee, or tea, should be issued—cocoa and milk for choice.

It is obviously important to have the troops supplied with food regularly, and always before marching; and, if possible, at a halt.

The Medical Officers attached to regiments, and the Sanitary Officers of brigades or divisions will exercise a careful supervision over everything connected with hygiene in the field, and will personally satisfy themselves as to the cooking, the sufficiency and quality of the supplies, &c. The returns and reports required from Medical Officers serving in the field by the Army Medical Department Regulations, for the information of the Sanitary Officer, will be invariably furnished.

Clothing.

Troops proceeding from England to Suakin will be supplied with helmets, serge and Khakee clothing.

Those going from Egypt to Suakin will be clothed in Egypt.

Troops going from the Mediterranean garrisons will take their serge clothing and helmets with them; the Khakee clothing will be sent to Suakin from England.

Back-pads, goggles, veils, puggaries, &c. will be supplied. (For detail, *see* page 14.)

If the troops are to be temporarily cut off from their base and equipped to the lightest practicable extent, they should be provided with a ground sheet (waterproof), a greatcoat or blanket, a spare pair of socks, a shirt and towel, with soap for washing.

Care as to personal cleanliness, and occasional changes of underclothing are essential to avoid ectozoa.

Dieting.

Men admitted into the movable field hospitals will be dieted on the field ration, supplemented by such medical comforts as may be suitable to their respective cases.

In the dieting of sick or wounded officers or men, any addition in the shape of extras may be made to the ordinary hospital diets that may be found practicable or advisable. Officers, convalescent or otherwise, undergoing treatment in the floating hospital will be dieted from the saloon mess in such manner as the Medical Officer in charge may think advisable, and they may be allowed to join the saloon mess as soon as they have sufficiently recovered to be, in the opinion of the Medical Officer in charge, fit to do so.

Stationary and general hospitals to be dieted as fully as practicable.

Transport.

Camels will be the carriage available, and the packages and loads will be of a size and kind suitable for transport on these animals.

Application has been made to India for 500 dhoolie bearers, and 100 Lushai dandies for a sick transport corps.

If further transport be required ships' cots must be used, and if difficulty be experienced in obtaining poles and bamboos in Egypt, the latter could be furnished from India, by telegraphing to Bombay for them. There will be a large reserve of ships cots (500) on board the hospital ship.

If sick or wounded be transported in dandies or in ships' cots, efforts of course will be made to protect them, as far as practicable, against the sun; and some provision should invariably be made for water and fluid nourishment accompanying them or being accessible.

If railway be available and utilised for conveyance of sick and wounded, the carriages set apart for the purpose should, if practicable, be indicated, and some ambulance (transport) system might be instituted. Hay or straw may be utilised for the floors of railway trucks, and holes cut for latrines when practicable.

There is a supply of twine hammocks on board the hospital ship.

As regards wounded or amputation cases, systematic evacuation, as far as practicable, will obviate overcrowding; wounded, as a rule, do well when moving through the air (where this can be borne) if reasonable precautions be taken; and a supply of dhoolies and Lushai dandies will be available, with 500 dhoolie bearers. It is much better to incur the risk of premature removal than the risk of overcrowding wounded; and it is advisable to distribute surgical cases rather than aggregate them together.

For sanitary no less than for curative reasons antiseptic dressings, however rough and simple, should be employed, as they tend to check discharges from the wounds, and to keep the hospital air sweet and wholesome.

Staging System.

To facilitate removal of sick and wounded and secure periodical rest and refreshment, a staging system of transport should be organised. Experience has shown that resting places or stations along a route from front to base are more easily kept clean and labour is much economised—sanitary as well as military objects.

Prompt aid to Wounded depends on good Organisation.

Whether or not the wounded are to be promptly succoured and saved from the evils and complications arising out of infective wound diseases, will depend, first of all, upon a proper distribution of men, transport, and material, that is upon a field medical organisation and administration.

Cleansing of Hospitals.

The wards of hospitals occupied by wounded should be periodically cleared out (rested as it were), cleansed, disinfected, and flushed with air. Tea leaves should not be thrown away but heaped up, damped with a weak solution of carbolic acid, and then used for sweeping the floors of hospital wards.

Medical Inspections.

Medical inspections of troops should be made as frequently as practicable, and daily in the event of the appearance of any infectious disease, and a vigilant attention should be given to the early detection of disease; these inspections need not, of course, be parades, or of a formal character.

It is better to march in the daytime (in as open order as possible) than to lie in the sun all day and have broken nights. Either early morning, or from 4 to 8 or 10 p.m., so long as it is moonlight, will do for marching.

In the event of troops occupying towns or villages, native grog shops should be put under military police regulations or altogether closed.

Disinfectants.

The following are the disinfectants sent out:—

McDougall's powder.
Carbolic acid.
Cupralum.
Chloride of lime.

Chloride of lime is the most powerful disinfectant; it is especially applicable on a large scale, when there is a considerable space and bulk of material to be dealt with.

Cupralum is especially applicable on a small scale, that is, for bed-pans, closets, &c.

Carbolic acid or McDougall's powder may be used for urinals, privies, dust-heaps, &c., as well as for the same purpose as cupralum, and for mixing with dry earth for hospital latrines, &c.

Importance of organising Base.

The first step towards attaining a successful field medical administration is the organisation of a base. The system of field hospitals may be represented by a closed telescope, from which you can project, as it were, the separate joints, each representing one or more hospital units or their equivalents, all capable of temporary self existence and isolation, but still mutually connected and inter-dependent one on the other for supplies of men and material and transit of sick and wounded from front to rear.

The sick and wounded will necessarily gravitate to the base, and in stationary hospitals provision can be made for equipment, dieting, clothing, nursing, and ample supplies of medical and surgical equipment; but in view of the difficulties of transport, medical officers should be impressed with the necessity of having a few well-selected drugs in as concentrated a form as practicable, and they should be cautioned to avoid "a run" on one drug when others would suffice for the same purpose. The better the medical officer the fewer will be the drugs he will require for the efficient treatment of the sick and wounded in the field at the front.

Wounded in Action.

It is a mistake to suppose that much is needed, or can be done, for a wounded man under fire or immediately after an action, except attending to his pressing requirements and moving him carefully to a place of safety, where the necessary time and attention, and the results of consultative measures can be applied.

To restrain grave hœmorrhage, avert the consequences of shock, or support a fractured bone is, of course, necessary; and to secure the moral effect of a first dressing in concealing the blood and injury from the wounded man and his comrades is also a very desirable object.

Penetrating wounds of the trunk are those which especially require the prompt personal supervision of the medical officer.

It is in proportion to the ease and promptitude with which a man can be relegated to the care of skilled hands with the necessary appliances that his safety will be secured.

We may, for practical purposes, divide wars into large European wars, and small wars between European and semi-civilised races.

The present organisation is probably the best that can be devised for promptly stripping the battle field of its wounded; and for European wars in which artillery and arms of precision are used, bearer companies and dressing stations are essential to the collection, dressing, and distribution of the wounded to the several field hospitals.

But in small wars, with semi-civilised nations like the present expedition, it should be quite practicable to advance a field hospital or a section thereof, together with a portion of a bearer company, well to the front—that is, to carry the hospital to the wounded instead of the reverse. Under such circumstances, the wounded should be at once transported there without being first subjected to the risk of defilement of the wound by the hurried application of a first dressing, or the displacement to the coagulated blood agglutinating its sides and edges.

It is undoubtedly most desirable to keep a gunshot wound aseptic, but the exposure and handling of it are calculated to effect the reverse of this, and as a matter of experience, the application of a first dressing is not only a superfluous work, for it has commonly to be cut off at the first dressing station or field hospital, but it is sometimes likely to prove mischievous. And it must be borne in mind that nature has in a sense supplied men and animals with a first dressing which they carry about with them, ready to pour out on the occurrence of a wound, namely, blood :—freshly coagulated blood is about the best aseptic plug than can be applied for sealing up a wound. The living tissues, and normal serum not tainted by vitiated fluids or the products of putrefaction, have the power of counteracting the energies and development of bacteria.

If these observations be founded on fact, it follows that the practice of antisepsis in the form of a first dressing is likely to have a more limited sphere of application in war than is commonly supposed. The nature of the first dressing is a question of detail, about which we do not seem to have reached a finality. It is quite clear that the first dressing must be of the very simplest description, capable of being affixed without any roller bandage, and of an antiseptic kind.

The first dressing supplied is that of Professor Longmore, and contains pads of carbolised tow, carbolised gauze bandage, with safety pin, a triangular bandage, a wrapper of tin foil, and a parchment paper cover impregnated with ½ per cent. of corrosive sublimate.

Mr. Sampson Gamgee has suggested an antiseptic wound pad, in which the antiseptic (salicylic acid) is enclosed in a capsule contained in the dressing. A large supply of these has been furnished by Messrs. Burroughs, Wellcome, & Co., Snow Hill Buildings.

Cotton wool acts as a filter, and is absorbent, and is capable of being made antiseptic. Oakum, tenax, or antiseptic wood wool, are too bulky for portability.

In the large majority of cases, all that can be done in the first line of help is of a temporary and provisional nature, and should consist in occluding or covering the wound, and a piece of "protective" would suffice, failing anything else, placing the injured part in a suitable position, and in certain cases rendering it immoveable.

In brief, the wounded soldier should, as a rule, be conveyed to a field hospital as promptly and safely as possible, where antiseptic surgery and dressing can be skilfully and properly applied once for all, and for this purpose that which is deficient in most wars is required—viz., transport.

The principles of modern surgery are :—To keep a wound, if possible, aseptic throughout; if this cannot be secured, to make it antiseptic, to keep it in a state of physiological, that is absolute, rest, and to secure drainage.

In all bullet flesh wounds do nothing, do not probe, finger, wash, or disturb in any way, but strive to put the wound in the same position as a wound of subcutaneous surgery, *i.e.*, in tenotomy. Nature tends to effect this provisionally, by sealing it up with coagulated blood.

Always carry a good clasp knife and a short, stout pair of scissors; have a number of powders of ½ grain of morphia in 5 grains of sugar in each powder; also a hypodermic syringe and morphia injection ready for use in exceptionally painful or severe injuries.

The following method of procedure was adopted in Egypt in 1882 with advantage at the advanced field hospital depôt :—

Having ripped up or cut off garments, wounds and neighbouring skin were well cleansed with a strong watery solution of carbolic acid (1 in 20), then *lightly sprinkled* with iodoform in powder, covered with "protective" (prepared oil silk) dipped in the carbolic solution, and over this a couple of layers of boracic lint applied and fixed with a gauze bandage.

If you can keep a wound aseptic from the first and maintain it so throughout you can save your patient from—

I. Risk of infective wound disease and septicæmia.

II. From suppuration and subsequent pocketing of pus, denudation of vessels and secondary hæmorrhage, and if it occurs under such circumstances, it may be very hard, if not altogether impracticable to tie the vessel at the spot, you will then have to delegate the main trunk higher up with additional risk and less certainty of controlling hæmorrhage.

III. From pyæmia.

When extensive injury of bone or other parts, and especially of a joint has ensued, it is still advisable to do as little as possible beyond covering up the wound with antiseptics, securing an immobile state of the parts, and transporting the patient to the nearest field hospital, where all that is requisite can be deliberately determined upon and done effectively once for all.

Lateral support can be obtained by any kind of splints secured by looped interrupted bandages. This method secures equable and easy support and allows of room for swelling.

If a wounded man with gunshot fracture of the lower extremity, for example has to be transported to any distance, it is essential to secure immobility of the limb, and the modification of the plaster of Paris splint known as Croft's splint is about the best for the purpose; but it should be applied by a surgeon, or, at any rate, under his personal supervision.

When sepsis and suppuration have set in, it is worse than useless to apply an outside antiseptic dressing and cover up the wound and cavity with carbolised tow, oakum, and antiseptic pads, or gauze and waterproof sheeting.

You must first evacuate the pus, wash out the whole cavity thoroughly with an antiseptic fluid, insert a large drainage tube opening in a dependent position, and then apply antiseptic absorbent padding fixed with a triangular bandage. Roller bandages should, as a rule, be avoided.

Meddlesome Dressing.

All surgery or dressing that has not a definite object in view is meddlesome, and meddlesome surgery or dressing is fatal to the aseptic or antiseptic method.

Indications—Local and Constitutional.

The indications for action are local—pain, swelling, or tenderness, welling-out of pus or fluid, any septic odour of wound or discharges; constitutional—rigors, or any increase of temperature as tested by the clinical thermometer.

As soon as wounds have acquired a healthy surface the application of strong disinfectants becomes not only unnecessary, but positively injurious. Boracic ointment under such circumstances is a good preparation, and so long as wounds are doing well they should be left alone.

As a rule, the tendency is to retain drainage tubes too long in wounds, delaying the reparative process, and creating by their presence irritation and discharge.

Irrigation.

In base hospitals, where irrigation may probably be practised, the following is a simple and efficient plan:—Place the soldier's waterproof beneath the injured limb, guttering it so as to run off all superfluous fluid, put a known quantity of the disinfectant to be used in a bottle (suspended), having a few strings of cotton wick passed through a cork, and incline it over the wound. Mark on the bottle the time taken to empty it, so that the contents can be replenished at regular and known intervals. In this way irrigation of several wounds with carbolic lotion or any other fluid may be systematically and easily pursued.

Where carbolic or other dressing is applied to a wound by means of a brush, it is well to supply the patient so treated with a camel-hair brush fixed to the cork of the phial containing the preparation, with strict injunctions that it is only to be used for his own wound; the brush and bottle to be destroyed on the termination of the case.

Flies.

Wounds may be protected against flies by the local use of infusion of quassia, weak solution of creosote, or by the application of a piece of lint steeped in turpentine and camphor outside the dressing. There will be supplies of fans and mosquito netting provided.

Tetanus—Local Pains, &c.

Is best avoided by even temperature, and carefully guarding the wounded—especially the wounded part—against a current of air. Dr. Chenu found (in the Italian War) that enveloping the wounded parts with tow protected them against cold at night, and that the application of opiate dressings was very useful; he states that he has even seen the commencing symptoms of tetanus disappear under this method.

Langenbeck speaks highly of the employment of chloral for allaying spasm after amputations and operations, considering it superior to opium for the purpose; 15 grains of the hydrate of chloral, with the addition of a small quantity of morphia, make an excellent soothing draught for wound irritation; and a mixture of the solution of the acetate of ammonia with acetate of morphia (in small doses) affords much relief in painful injuries or burns.

Dressings, Cleanliness, &c.

Bandages, gutta-percha tissue, sponges, &c., should not be used a second time after they have been in contact with wounds or discharges; tow, which can be destroyed, instead of sponge, and irrigators (easily extemporised by adapting a piece of india-rubber tubing to a hole in the bottom of an empty preserved meat tin or to a bottomless wine bottle), are the best methods of cleansing wounds; and surgical instruments, after having been used, should be thoroughly cleaned and dipped in antiseptic solution before and at the time of their use; and sponges should be kept in carbolic solution or in a solution of corrosive sublimate of weak strength.

Wounded men removed by suitable transport after amputation do well as a rule.

Unhealthy action in wounds is best prevented by cleanliness, the use of disinfectants in dressings, and the distribution of wounded cases, which will be secured by an adherence to the principle of evacuating the sick, for it would not otherwise be possible to prevent overcrowding without enormously increasing the tentage accommodation in the field. (A soldier with an unhealthy action in a wound should, as a rule, be moved off: in this way risk to others is avoided without any detriment to the individual—quite the reverse.)

Splints.

The wood of spare packing cases, &c., may be utilised for the construction of splints.

Record of Cases.

Medical officers should record such cases as from their professional interest and importance are likely to be of value for future reference.

Diary.

They are strongly recommended to keep a short diary of current events, movements, interesting cases, and such practical hints and details as arise from day to day; notes at the time, while the facts are fresh, not only furnish a trustworthy record, but frequently supply valuable suggestions for future use.

Antiseptic solutions.

Ample supplies of material for antiseptic surgery and dressing have been sent out.

1. Corrosive sublimate, drachms 4.
   Glycerine, oz. 6.
   Alcohol, oz. 4.

Label *Poison.*—One oz., diluted with 2½ pints of water, makes a solution equal to 1 in 1,000.

2. Carbolic acid for syringing, 1 in 20.
   Carbolic acid for dressing, 1 in 40.
3. Chloride of zinc, 40 grs. to 1 oz.

After an amputation, mix one part of the above with three of carbolic solution, 1 in 20, and use as an application to the flaps. This solution has strong styptic as well as antiseptic properties.

4. For gunshot wound track, if suppurating, drainage tube and syringe, with—
   Iodoform, 10–15 grs. to 1 oz. of carbolic solution—1 in 20.
   Stir and inject with syringe.

The following, extracted from a communication received from Generalarzt Dr. Roth, of the German Army, in January of last year, represents the results of the expeiience obtained at the civil hospital, Dresden, where in one year 1,527 surgical cases were treated, and 300 important operations performed without the occurrence of any infective wound disease.

Corrosive sublimate is used in the proportion of 1 in 1,000 for dressing wounds, but satisfactory results have been reached with solutions of 1 in 10,000.

Antiseptic gauze is prepared by the gauze being impregnated by a solution of sublimate 10, alcohol 4,490, and glycerine 500. Silk for sutures is boiled one hour in a solution of ½ per cent. sublimate. Catgut is prepared by placing the catgut 24 hours in a solution of ½ per cent. of sublimate then they are conserved in alcohol. Sponges used for operations are always in a solution of ½ per cent. of sublimate (in water).

It should be added that a solution of corrosive sublimate is an excellent and powerful agent for disinfecting the excreta from infectious cases.

The following antiseptic solution will, it is believed, be found a good one for dressing wounds:—

Take of camphor 1 scruple; glycerine, alcohol, of each 1 ounce; water to 16 ounces; corrosive sublimate 3½ grains (1 in 2,000). Moisten lint, cotton wool, or dressing with the above, and prevent evaporation by superimposing some oiled silk, gutta-percha tissue, or other impermeable material.

Ophthalmia.

The following measures are recommended:—

Avoid overcrowding in tents.

The men to be encouraged to wear glasses and veils to protect the eyes against dust and flies.

Every soldier to use his own towel, and great care to be exercised to prevent a number of men from washing successively in the same water.

A daily inspection and separation of all affected individuals.

All affected men to be supplied with an ordinary astringent eye wash, for frequent use; purulent cases to be treated by the local application of a mixture of precipitated iodoform and arrowroot to the inside of the eyelid (dusting), and non-purulent cases by an ointment of the peroxide (red oxide) of mercury.

The iodoform is to be thoroughly mixed with arrowroot or starch, in the proportion of ⅓ to ½ iodoform, according to the severity of the case.

The purulent discharge having been removed, the above mixture is very lightly dusted over the inside of the eyelid, and a compress of lint and cold water placed upon the eye.

Clothing.

The troops proceeding to Suakin will be supplied with the following articles of clothing, &c., per man:—

Mounted Services.

1 serge frock.
1 pair blue tartan trowsers.
1 pair Bedford cord pants.
2 frocks. }
2 pairs trowsers. } Khakee drill.
1 waistcoat (Commissariat and Transport Corps only).
2 pairs drawers (mounted Infantry only).
2 pairs ankle boots.
1 pair of puttees (except Engineers).
1 pair canvas leggings (Engineers only).
1 pair jack spurs (mounted Infantry and Commissariat and Transport Corps only).
1 helmet.
1 puggaree.
1 veil.
1 back pad (spine protector).
1 pair goggles.
2 flannel belts.
1 clasp knife and lanyard.
1 housewife.
1 tin of grease.
1 bag (canvas for mounted infantry and waterproof for cavalry.)
1 cavalry mess tin (mounted infrantry only,) and
1 blue worsted cap, and
4 pieces of yellow soap.

Dismounted Services.

1 Serge frock.
1 pair of blue serge or tartan trowsers.
2 frocks. }
2 pairs trowsers. } Khakee drill.
1 waistcoast (Commissariat and Transport Corps and Artillery only).
1 pair ankle boots (April 1885 issue).
1 helmet.
1 puggaree.
1 veil.
1 back pad (spine protector).
1 pair goggles.
2 flannel belts.
1 clasp knife and lanyard.
1 housewife.
1 tin of grease.
1 blue worsted cap, and
4 pieces of yellow soap.

In addition to the above the men will take with them the following articles already in their possession:—

1 jacket or frock }
1 pair trowsers } for wear on shipboard.
1 pair of ankle boots (dismounted services only).
1 pair of Wellington boots (mounted Engineers only).
1 cloak or greatcoat (without cape).
1 forage cap.
1 pair jack spurs (cavalry and mounted Engineers only).
1 pair gloves (mounted services and dismounted artillery only).
1 kit of necessaries as for field service.

Revised Medical Regulations.

The following are the details of units and equipments based upon the revised medical regulations:—

1ST.—MEDICAL ASSISTANCE TO CORPS IN THE FIELD.

Paras. 706 to 709.

Each regiment of infantry and cavalry to have—

1 medical officer attached.

N.B.—His servant will be supplied from the ranks of the corps to which attached, and his baggage carried regimentally, *vide* G.O. 95 of 1884.

Medical Equipments of Regiments, &c.

1 corporal from regiment (charge of panniers).
1 private ,, (orderly).
1 pair field medical panniers.
1 field companion with water-bottle.
1 surgical haversack ,,
1 tent surgery (single circular).

Each battery, troop or company (Royal Engineers) detached.

1 medical officer.
1 private (ranks of corps).
1 field medical companion, with water-bottle.
1 surgical haversack, with water-bottle.

Para. 711.

Each medical officer to have a copy of Army Book 39 (hospital diary or ward book), but not to be required to furnish any returns of sick.

All sick, with company sick reports, to be seen by medical officer before passing to the field hospitals, so as to prevent men passing without due cause.

Any regiment, battery, or company unprovided with the equipment named will be supplied at Suakin before passing inland.

Principal Medical Officer at base has a supply of Army Books 39.

Paras. 719 to 752.

2ND.—BEARER COMPANIES.

Two sent out, with the personnel and equipment shown in Appendices Nos. 43 and 52.

Equipment packed suitably for carriage on camels, mules, or in light carts.

Bearer Companies.

Paras. 753 to 783.

One company provided with ambulance wagons, the other with cacolets and litters as sick carriage.

Each bearer company is a complete unit, and *cannot* be divided into half companies. *Note this fact as important.*

Lushai dandies with bearers are to be sent from India, and it may be necessary to organise the entire bearer service from these natives, should the men of the Medical Staff Corps be required for other duties.

The bearer companies will be associated with and act in concert with the field hospitals as much as possible, but the organisation of each unit will be kept distinct.

3RD.—FIELD HOSPITALS.

Of these four each for 100 patients, divisible into halves, for 50 patients, but it is not desirable that a hospital should be divided unless under absolute necessity.

Field Hospital.

Equipment and personnel shown in Appendices Nos. 43 and 53. Equipment and stores packed in boxes suitably for animal or cart transport.

Nos. 1 and 2 field hospitals embark in "Arab" on 17th instant. No. 3 embarks on 24th, and No. 4 in the "Pembroke Castle," with the Brigade of Guards; the latter hospital will be attached to, embarked with, and worked by the medical staff of the Brigade of Guards.

Clothing.

Field hospitals are not now furnished with hospital clothing. Any personal clothing or necessaries required for sick men should be drawn from the military depôts of such stores in the field.

Dieting.

They are not dieted. The field ration is brought by the sick with them to the hospital, and then cooked and supplemented with extras as may be necessary; should a sick man not bring it, a ration can, if necessary, be drawn for him by the medical officer in charge, for the day of the man's admission, and for so long as he remains in the field hospital.

Bedding.

They are not provided with bedsteads or paillasses, but with blankets, bolster cases, and waterproof sheets for the patients to lie on. Straw, or any other suitable material will, of course, be interposed between the ground and ground sheet were practicable.

Consignment of Stores.

The equipment and stores (including boxes of forms and stationery) will be shipped for each bearer company and field hospital, and consigned as complete units to the Senior Ordnance Store Officer at Suakin, for Principal Medical Officer of Force.

This does not apply to No. 4 field hospital which will be shipped with the Brigade of Guards.

One of these field hospitals will, as a rule, be associated with each brigade, but this arrangement will in no way interfere with their disposal and distribution as the General Officer Commanding and the Principal Medical Officer may direct.

4TH.—STATIONARY HOSPITAL.

Paras. 791 to 811.

One of 200 beds, divisible into four complete sections. Equipment, shown in requisition form, and personnel in Appendix No. 54.

Hospital for Lines of Communication.

This hospital is intended for the lines of communication, and the sections for detached hospitals at different points; and additional hospitals of this class will be supplied on demand.

Clothing.

It is supplied with hospital clothing, in the proportion of a change for each of the 200 patients.

Dieting.

It will be dieted as fully as possible, in accordance with the resources of the commissariat, and each section is furnished with an American cooking stove, in addition to the usual hospital cooking utensils.

Stretchers.

It has a full complement of hospital stretchers, which can be used as bedsteads, as well as waterproof sheets and paillasses.

Tents.

The tents will be supplied from India, of the pattern used for European privates in that country; separate accommodation must be set apart for Officers.

Special Articles.

Certain special articles are sent to add to the comfort of the hospital, as shown in manuscript Table "A."

5TH.—HOSPITAL SHIP.

Paras. 823 to 841. One of 200 beds, fully equipped and dieted, with separate accommodation for officers. A second hospital ship is already at Suakin, and a medical store ship will also be provided.

6TH.—GENERAL HOSPITAL AT BASE.

Paras. 813 to 822. One for 300 beds, fully equipped. Huts will be provided for an Officer's hospital.

7TH.—ADMINISTRATION AT BASE.

Paras. 691 to 702. This will be under the Principal Medical Officer at base, subject to instructions from General Officer Commanding and the Principal Medical Officer of the Force.

Superintendence.

The Principal Medical Officer will exercise general superintendence over every medical arrangement, including the hospital stores, troopships, &c.

Arrivals and Departures.

All arrivals and departures of the medical department will be made to him; all authorised persons rendering voluntary aid to the sick will be subject to his orders and disposal.

Depôt of Medical Stores.

The depôt of medical stores will be in a ship, in charge of a medical officer with a quartermaster as storekeeper, and a requisite staff of compounders, clerks, and packers; from this store all hospitals, &c., will be supplied, and the advanced depôt of medical stores in the field kept up. The Principal Medical Officer will arrange for the landing and despatch of all stores from the depôt vessel or other ships arriving with departmental stores.

Quartermaster, for Pay, &c.

A Quarter Master, Medical Staff, will be detailed to act under the Principal Medical Officer at the base, and to have charge of the pay, clothing, and equipment of the men of the Medical Staff Corps as well at the base as of those who have passed inland, all the men's documents connected with pay, clothing, and equipment, will be handed over to this Quarter Master for safe custody.

Invaliding and Embarkation.

The Principal Medical Officer at base will superintend the invaliding and embarkation of sick and wounded, and see that every troopship is duly provided with medicines and appliances, medical comforts and attendance.

Clothing on Troopships.

Para. 91. Every troopship conveying healthy troops will have hospital clothing put on board in the proportion of 3 per cent. of strength, and those with invalids 10 per cent. of strength, or more if necessary. Supplies of such clothing will be obtained from the depôt of clothing at the base.

GENERAL MEMORANDA.

Medical Equipment of Units.

1st. The medical equipment with each unit in the field is shown in manuscript Table "B." Paras. 784 to 790.

In addition to the equipment held in reserve at the advanced depôt, a handy and suitable supply of medicines and materials in bulk will also be kept for replenishing the panniers, &c., with the force in front. The depôt is moved up behind the advancing troops, under the personnel shown in manuscript Table "C."

Lighting.

2nd. Lighting will be by the ordinary hospital lamps burning colza oil. The commissariat supply oils and wicks. Mineral oil will not be supplied.

Forms, Books, and Stationery.

3rd. A supply of forms, books, and stationery, packed in suitable cases, have been consigned to the senior ordnance store officer at Suakin for each field hospital and bearer company, and for the under-mentioned, all boxes stencilled and marked, to whom they belong, viz.:—

(*a.*) Principal Medical Officer of force.
(*b.*) " " at base.
(*c.*) Sanitary Officer.
(*d.*) Depôt of medical stores at base.
(*e.*) Advanced depôt of medical stores. Keys handed to Principal Medical Officer of Force, for distribution at Suakin.

Returns.

4th. Returns as required: Paras. 1,208 to 1,222.

Daily returns from each field and other hospital to Principal Medical Officer under whom they are (Army Form A23).

Daily returns of above, consolidated by Principal Medical Officer to General Officer Commanding (Army Form A28).

Weekly returns (Army Form A29) from every hospital to Principal Medical Officer of Force, at the same time posting a copy direct to Director-General.

Special returns, as called for by Principal Medical Officer (Army Form A6 and A7).

Reports.

5th. Reports, as called for by Principal Medical Officers:— Para. 1,145.

Weekly sanitary reports by Sanitary Officer to Principal Medical Officer. Para. 1,220.

Periodical reports by Principal Medical Officer to Director-General in every matter connected with the health of the troops, the working of the hospitals and the sufficiency of the supplies, personnel, &c.

Nominal Rolls of Transfers.

6th. Nominal rolls of sick and wounded proceeding from front to base will be shown on Army Form I. 1226, accompanied as well by individual medical certificate (Army Book 172). A copy of every nominal roll of men thus sent will be carefully kept by Principal Medical Officer of Force for reference, to enable men to be traced; the other copy will proceed with the men to the base, and be filed in the general hospital. The disposal of every man will be noted on the column of remarks, as "died on road at ———," or "left at hospital at ———," or "arrived at base hospital." Paras. 772 and 806.

Appendices Attached.

9th. A number of new appendices of the revised medical regulations are forwarded for reference, and a proof copy of the regulations themselves. These copies are not free from typographical errors, and not being yet issued, are for private use only. The contents of canteens, medical panniers, &c., may not all be according to the revised list; but if not, will be found in accordance with existing medical regulations.

Disposal of Arms, &c., of Sick.

10. Arms, accoutrements, and kits of *ordinary* sick are sent with them to the field hospitals and entered in the pack store lists, but not taken on charge in the equipment ledgers. Arms, ammunition, and accoutrements of wounded are picked up by the bearer companies and taken with the man to the field hospitals, where such are entered in the pack stores lists, and are transferred with the men. Special instructions are usually issued by General Officer Commanding about disposal of ammunition of sick and wounded.

Paras. 748 and 749. When parties move towards the base, a non-commissioned officer of the Medical Staff Corps will have special charge of the kits, arms and accoutrements of the sick, together with the pack store lists, which will be endorsed by each non-commissioned officer taking over charge of the same.

Discretion as to re-arrangement of Duties.

11th. Although the personnel of the Bearer Companies and Field Hospitals are laid down as fixed units, it is of course for the Principal Medical Officer to decide on any re-arrangement that may be necessary; especially does this apply to the interchange of duties between quartermasters and sergeants-major.

12th. A general hospital of 200 beds will be established at Suez for the reception of cases which it may be necessary to send from Suakin.

13th. The revise of the Medical Regulations now in the press, from which these details are summarized, will, it is hoped, be shortly issued, and transmitted to you as soon as possible.

T. Crawford,
Director-General.

APPENDIX No. VIII.

APPENDIX

Annual Abstract of Meteorological Observations taken

NETLEY. Lat. 50° 51′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.			Per Cent.	Minimum.	
			Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January	29·835	45·0	36·6	47·6	27·8	31st	52·0	21st	·254	92·0	71·0	26th
February	30·009	45·0	36·3	50·8	27·6	26th	55·8	7th	·276	91·7	83·0	17th
March	29·868	39·0	28·7	48·0	21·2	24th	62·0	31st	·209	84·8	66·0	29th
April	29·939	48·1	35·9	59·5	27·0	11th	69·8	3rd	·279	77·9	62·0	9th
May	29·899	54·1	41·7	63·5	29·4	5th	75·0	16th	·337	77·4	62·4	16th
June	29·900	60·5	48·4	72·7	38·4	17th	81·4	4th	·431	74·9	50·0	5th
July	29·810	61·0	53·5	70·8	43·1	16th	81·6	2nd	·433	79·0	63·0	22nd
August	29·973	63·0	51·9	74·1	44·0	12th	83·2	26th	·458	74·0	38·0	16th
September	29·777	58·0	49·4	66·9	37·0	9th	75·8	25th	·428	93·0	75·0	29th
October	29·919	52·0	43·6	59·9	34·5	22nd	67·0	10th	·350	87·4	66·0	18th
November	29·817	47·0	36·2	52·8	24·5	15th	58·5	6th	·270	90·8	73·0	15th
December	30·145	43·0	36·6	46·1	26·5	8th	55·0	24th	·233	88·2	66·0	12th
Mean	29·907	51·3	41·5	59·3	31·7	—	68·0	—	·329	84·2	64·6	—

GIBRALTAR. Lat. 36° 6′ N.

January	30·178	57·0	50·8	63·6	45·8	18th	72·8	2nd	·467	93·0	80·0	23rd
February	30·282	57·0	51·9	66·9	45·0	14th	74·5	22nd	·462	90·8	81·0	23rd
March	29·995	56·0	50·8	62·6	39·5	11th	73·0	31st	·429	86·7	70·0	12th
April	29·982	60·0	55·2	67·3	48·0	16th	75·0	22nd	·513	88·6	70·0	21st
May	30·014	65·0	57·7	71·6	50·5	4th	84·5	20th	·599	78·0	75·0	10th
June	30·039	70·6	61·4	76·3	53·0	3rd	80·2	26th	·620	69·0	61·0	16th
July	30·015	74·0	69·2	80·0	62·1	15th	88·2	12th	·729	84·0	63·0	28th
August	29·101	74·0	70·5	86·2	65·0	23rd	97·5	15th	·825	95·2	79·8	15th
September	30·077	67·0	64·6	79·8	58·0	30th	85·0	13th	·740	92·2	75·0	7th
October	29·626	66·0	58·6	71·8	54·0	14th	77·0	19th	·583	91·6	79·0	4th
November	30·157	63·0	53·7	70·0	48·2	25th	73·2	6th	·516	97·6	80·0	17th
December	29·975	56·0	50·3	62·6	40·0	10th	69·0	16th	·410	82·4	75·4	10th
Mean	29·953	63·7	57·8	71·5	50·7	—	79·1	—	·574	87·4	74·1	—

SCUTARI CEMETERY. Lat. 41° 0′ N.

January	30·039	51·3	33·3	45·2	20·0	7th	56·4	26th	·203	81·9	50·4	8th
February	30·188	50·7	82·4	41·5	27·4	11th	53·2	4th	·183	84·3	57·0	2nd
March	29·816	55·0	37·5	51·7	27·6	14th	67·4	27th	·234	75·2	50·4	29th
April	29·856	61·8	42·8	61·1	33·0	4th	80·0	29th	·304	75·8	55·6	20th
May	29·858	66·0	53·1	74·5	44·2	22nd	91·6	31st	·440	65·6	44·6	5th
June	29·856	72·8	60·7	84·9	54·6	6th	94·4	7th	·536	67·0	49·8	15th
July	29·838	77·5	65·2	89·9	58·8	18th	97·6	30th	·613	63·2	38·4	18th
August	29·870	77·2	65·1	89·7	58·4	15th	98·8	1st	·563	57·8	30·8	15th
September	29·905	74·0	63·2	84·5	54·8	27th	94·4	4th	·550	64·8	50·8	17th
October	30·028	69·1	57·1	73·6	45·6	20th	95·8	5th	·445	68·9	38·0	5th
November	30·075	62·5	47·2	61·7	38·4	25th	72·0	7th	·325	78·2	56·4	7th
December	29·961	56·1	38·7	49·6	29·6	21st	61·4	5th	·252	84·6	66·2	11th
Mean	29·940	64·5	49·6	67·3	41·0	—	80·2	—	·387	72·2	49·7	—

No. VIII.

at Netley and Foreign Stations in the Year 1883.

Long. 1° 20′ W. Height of Barometer Cistern above Sea, 47 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
7·0	2·47	0·40	24th	19	—	—	—	2·0	7·0	20·5	2·0	1·0	5·5	2·0	4·0	3·5	12·0	1·0	2·0	—
7·6	3·16	0·46	10th	18	—	—	—	1·0	3·5	19·0	3·0	1·0	0·5	—	3·5	5·5	11·5	1·5	4·5	—
5·5	0·64	0·28	19th	8	3·0	—	—	—	9·5	16·0	3·0	10·0	10·0	0·5	—	1·5	2·5	2·0	4·5	—
6·5	0·96	0·35	18th	7	2·0	—	—	1·0	6·0	17·0	—	2·0	8·0	1·0	5·0	4·0	4·5	3·5	2·0	—
6·9	2·40	0·62	11th	15	—	—	—	—	6·0	20·5	1·0	4·0	9·0	—	1·5	2·5	10·5	1·0	2·5	—
7·3	0·92	0·28	27th	13	—	—	4·0	—	3·0	21·5	1·0	1·5	6·0	—	3·0	4·0	10·0	0·5	5·0	—
7·2	3·78	0·72	10th	19	—	—	2·0	—	3·5	17·0	—	—	1·0	—	2·0	1·5	15·5	5·5	5·5	—
5·3	1·14	0·33	31st	10	—	—	—	—	11·5	12·0	—	—	0·5	0·5	2·5	1·0	11·0	9·5	4·5	1·5
7·8	3·59	0·80	23rd	16	—	—	—	1·0	3·5	20·0	1·0	2·5	3·5	0·5	4·0	1·5	8·5	5·5	2·5	1·5
7·0	2·64	0·56	15th	12	—	—	—	—	5·5	17·0	—	3·0	2·0	2·0	2·5	2·0	8·5	5·0	5·5	0·5
6·9	3·81	0·61	24th	17	—	1·0	1·0	1·0	7·0	15·5	—	1·5	2·5	0·5	1·0	0·5	9·0	8·5	5·0	1·5
7·3	0·59	0·42	10th	4	—	—	—	1·0	6·5	19·0	1·0	2·0	3·0	—	3·5	1·0	5·0	6·0	9·5	1·0
6·8	2·17	0·48	—	13·1	0·4	0·08	0·5	0·5	6·0	17·9	1·0	2·3	4·2	0·5	2·7	2·3	9·0	4·1	4·4	0·5

Long. 5° 20′ W. Height of Barometer Cistern above Sea, 53 feet.

4·7	5·46	2·00	11th	9	—	—	—	—	10·5	9·0	—	Anemometer out of order.								
4·1	0·63	0·30	6th	3	—	—	—	—	11·5	7·0	—									
5·9	5·03	0·83	15th	14	—	—	—	—	8·0	14·5	—									
5·4	5·01	2·20	26th	8	—	—	—	—	9·5	11·0	—									
3·7	2·90	1·50	15th	4	—	—	—	—	15·5	5·0	—	—	·5	10·5	1·0	—	1·5	6·5	10·5	0·5
2·8	0·33	0·31	3rd	2	—	—	—	—	19·5	2·0	—	—	1·0	11·0	—	—	0·5	8·0	9·5	—
3·0	0·08	0·08	31st	1	—	—	—	—	16·5	6·5	—	—	4·5	11·0	—	—	3·5	9·0	3·0	—
3·8	0·11	0·11	25th	1	—	—	1·0	—	13·5	3·5	—	—	2·5	23·0	2·5	—	—	1·5	1·5	—
2·3	—	—	—	—	—	—	—	—	20·5	—	—	—	1·5	8·5	0·5	—	2·0	7·0	10·5	—
3·4	4·54	2·10	8th	5	—	—	—	—	16·0	5·0	—	—	5·0	12·0	—	—	0·5	2·0	11·5	—
3·7	—	—	—	—	—	—	—	—	15·0	8·0	—	—	—	—	—	—	—	—	—	—
4·8	6·03	3·00	19th	5	—	—	—	—	10·5	9·0	—	—	0·5	15·5	0·5	—	—	2·5	12·0	—
3·9	2·51	1·03	—	4·3	—	—	0·08	—	13·8	6·7	—	—	2·2	13·0	0·6	—	1·1	5·2	8·3	0·07

Long. 29° 3′ E. Height of Barometer Cistern above Sea, 60 feet.

7·2	2·20	1·0	4th	18	11	2	—	—	4·5	17·5	—	4·5	9·0	9·0	0·5	1·0	3·0	0·5	2·0	1·5
8·5	1·64	0·21	7th	23	—	—	—	2	2·0	22·5	—	15·0	5·5	2·0	0·5	2·5	1·0	—	0·5	1·0
7·1	4·89	0·68	13th	23	—	—	—	3	7·0	19·5	2	3·5	6·0	2·0	0·5	11·0	4·0	1·0	0·5	2·5
6·9	1·90	0·56	29th	18	1	2	1	1	4·0	14·5	—	8·0	5·5	1·0	0·5	5·5	5·5	2·0	0·5	1·5
5·8	0·90	0·27	13th	10	—	—	2	4	8·5	11·0	—	4·5	4·0	1·0	1·0	8·0	6·5	1·5	—	4·5
4·4	1·91	1·53	23rd	10	—	—	7	1	13·0	7·5	—	1·5	11·0	2·5	—	6·5	7·0	0·5	—	1·0
3·1	0·56	0·55	2nd	2	—	—	4	3	19·0	4·0	—	5·0	13·5	2·5	—	3·0	4·5	1·0	—	1·5
3·3	0·36	0·30	22nd	4	—	—	3	1	20·0	5·5	—	6·5	15·0	3·5	—	3·0	1·0	0·5	—	1·5
4·3	1·48	1·05	9th	6	—	1	4	—	12·5	5·5	—	3·5	10·5	4·0	—	3·5	5·0	0·5	0·3	2·5
5·5	1·78	0·63	10th	8	—	—	—	1	8·5	11·5	—	3·0	12·0	2·5	0·5	2·0	6·0	1·5	—	3·5
5·7	2·36	0·87	22nd	12	—	—	—	3	9·5	18·5	—	3·0	11·0	4·5	1·0	1·5	3·0	—	—	6·0
7·7	9·57	1·70	25th	21	—	—	—	1	5·0	21·0	—	10·0	4·0	3·0	1·0	7·0	2·0	2·0	1·5	0·5
5·7	2·46	0·77	—	12·9	1·0	0·4	1·7	1·6	9·4	13·2	0·1	5·6	8·9	3·1	0·4	4·5	4·0	0·9	0·4	2·2

Appendix

Annual Abstract of Meteorological Observations taken

NICOSIA, CYPRUS. Lat. 35° 10′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.			Per Cent.	Minimum.	
			Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January - -	—	—	41·8	57·3	34·6	30th	67·3	1st	·307	84·6	54·0	3rd
February -	—	—	39·4	61·3	31·8	12th	68·5	6th	·294	81·3	44·0	5th
March - -	—	—	42·4	68·1	32·4	17th	87·4	28th	·319	67·5	35·0	29th
April - -	—	—	45·9	76·1	35·0	1st	86·5	28th	·330	56·6	26·0	26th
May - -	—	—	46·2	89·5	35·2	14th	104·0	31st	·440	67·6	27·0	6th
June - -	—	—	53·8	97·5	42·2	4th	112·0	20th	·502	41·8	28·0	6th
July - -												
August - -												
September -												
October - -	—	—	56·2	86·2	49·9	22nd	93·8	15th	·549	65·2	45·2	28th
November -	—	—	48·1	73·2	40·0	4th	81·5	10th	·424	72·0	41·0	4th
December -	—	—	42·7	63·0	32·8	24th	70·1	5th	·343	86·6	52·3	14th
Mean -	—	—	46·2	74·6	37·1	—	85·6	—	·389	69·2	39·1	—

No barometer.

POLYMEDIA, CYPRUS. Lat. 34° 40′ N.

January - -	29·985	52·3	47·1	62·4	43·0	22nd	72·0	15th	·360	77·2	57·0	15th
February -	30·009	52·5	44·4	62·1	37·0	14th	70·0	20th	·340	75·3	40·0	20th
March - -	29·985	58·9	48·6	67·6	36·2	1st	84·2	29th	·350	60·4	29·0	29th
April - -	29·951	64·8	52·2	74·5	43·0	1st	88·0	30th	·406	59·0	37·0	30th
May - -	30·080	77·0	59·1	83·3	50·4	9th	94·4	7th	·481	56·4	27·0	8th
June - -												
July - -												
August - -												
September -												
October - -	29·929	76·6	64·5	85·1	58·0	19th	94·0	26th	·518	49·4	35·0	24th
November -	30·042	67·7	55·4	75·2	44·0	28th	82·0	8th	·443	62·4	34·6	9th
December -	29·978	56·0	48·0	61·0	38·0	21st	73·0	4th	·310	71·0	45·0	11th
Mean -	29·994	63·2	52·4	71·4	43·7	—	82·2	—	·401	63·8	38·0	—

MOUNT TROADOS, CYPRUS. Lat. 34° 57′ N.

January - -												
February -												
March - -												
April - -												
May - -												
June - -	—	67·5	51·8	74·2	30·0	28th	84·0	20th	·305	54·6	36·0	30th
July - -	29·969	73·5	59·0	79·4	48·0	2nd	90·0	26th	·351	41·3	26·8	26th
August - -	29·983	69·7	56·2	79·0	48·0	28th	88·0	2nd	·292	38·8	22·6	19th
September -	30·022	66·1	55·2	75·0	40·8	21st	89·0	4th	·299	42·3	29·2	12th
October - -												
November -												
December -												
Mean -	29·991	69·2	55·5	76·9	41·7	—	87·7	—	·311	42·2	28·6	—

No. VIII.—*continued.*

at Netley and Foreign Stations in the year 1883.

Long. 33° 21′ E. Height of Barometer Cistern above Sea, 592 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								Calm.
				Number of Days of								Number of Observations under each Point.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	
5·3	3·06	0·83	16th	20	—	—	3·0	1·0	10·5	9·0	—	—	10·0	4·0	3·0	0·5	3·0	2·0	5·5	3·0
4·9	3·05	0·82	16th	15	—	—	1·0	—	11·0	9·5	—	—	3·5	4·5	4·0	—	2·5	3·0	7·5	3·0
3·5	1·16	0·69	1st	9	—	—	1·0	3·0	18·0	4·5	1·0	1·0	2·0	9·0	1·0	1·5	1·0	6·0	6·0	3·5
3·4	1·45	1·35	5th	6	—	—	1·0	—	20·0	5·0	—	0·5	3·0	3·0	3·0	—	—	5·0	11·0	4·5
3·1	0·86	0·35	12th	5	—	—	5·0	—	17·0	4·0	1·0	1·0	3·0	10·0	8·0	1·0	0·5	3·0	4·5	—
1·0	0·53	0·53	13th	1	—	—	—	—	19·0	4·0	—	1·0	1·0	3·0	2·0	—	1·0	6·0	9·0	—
4·1	0·33	0·33	19th	1	—	—	—	—	9·0	4·0	—	1·5	1·5	2·0	3·5	1·0	0·5	6·0	4·0	—
4·5	2·56	1·51	15th	11	—	—	2·0	—	10·0	6·0	—	2·5	3·0	4·0	1·0	2·5	2·0	9·5	5·5	—
5·6	7·70	1·23	26th	16	—	—	—	1·0	8·0	12·0	2·0	3·0	1·0	3·0	3·5	5·0	1·0	6·0	8·5	—
3·9	2·30	0·84	—	9·3	—	—	1·4	0·5	13·6	6·4	0·3	1·1	3·1	4·7	3·2	1·2	1·2	5·1	6·8	1·5

Long. 33° 0′ E. Height of Barometer Cistern above Sea, 400 feet.

Mean Amount of Cloud.	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
6·7	6·85	1·25	5th	20	—	4·0	7·0	—	5·0	16·5	—	2·5	4·5	9·0	3·5	—	0·5	7·0	4·0	—
6·7	3·09	0·97	26th	12	—	4·0	3·0	—	5·5	14·0	—	2·0	5·5	3·5	1·0	—	1·0	7·5	7·5	—
5·2	1·70	0·88	2nd	7	—	—	1·0	—	10·0	9·5	—	1·5	4·0	4·5	2·0	0·5	2·0	5·0	11·5	—
4·6	0·52	0·25	4th	5	—	—	—	—	12·5	5·0	—	1·5	—	4·0	4·0	4·0	3·0	7·5	6·0	—
2·3	0·27	0·16	16th	3	—	—	—	—	24·5	1·0	—	—	0·5	0·5	5·0	3·0	8·0	11·0	3·0	—
2·9	—	—	—	—	—	—	—	—	—	—		1·5	1·0	2·5	5·0	0·5	1·0	4·0	1·0	—
4·1	3·00	1·80	28th	8	—	8·0	5·0	—	15·0	6·5	—	0·5	8·0	6·5	5·0	1·0	4·0	0·5	4·0	0·5
4·0	11·35	1·82	26th	18	—	—	—	—	16·0	7·0	—	3·0	8·0	3·0	2·0	2·0	3·0	2·0	8·0	—
4·5	3·34	0·89	—	9·1	—	2·0	2·0	—	11·0	7·4	—	1·5	3·9	4·1	3·4	1·5	2·8	5·5	5·6	0·06

Long. 32° 55′ E. Height of Barometer Cistern above Sea, 5,720 feet.

Mean Amount of Cloud.	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
1·2	1·08	0·55	13th	4	—	—	4·0	—	16·0	1·0	—	—	1·5	0·5	2·0	0·5	0·5	2·5	4·0	—
1·1	0·06	0·06	28th	1	—	—	—	—	29·0	—	—	5·0	4·0	5·0	4·5	1·0	2·5	2·5	6·5	—
1·4	0·18	0·12	27th	2	—	—	1·0	—	26·5	2·0	—	3·0	6·0	2·5	3·0	2·5	3·5	4·5	6·0	—
1·5	—	—	—	—	—	—	—	—	23·5	2·5	—	4·0	5·0	5·0	2·5	2·0	5·0	4·0	2·5	—
1·3	0·33	0·18	—	1·7	—	—	1·2	—	23·7	1·8	—	3·0	4·1	3·2	3·0	1·5	2·8	3·3	4·8	—

Appendix

Annual Abstract of Meteorological Observations taken

MALTA. Lat. 35° 53′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.			Per Cent.	Min.	
			Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January	29·992	60·0	52·8	60·3	39·0	25th	68·2	12th	·400	84·4	62·8	5th
February	30·172	59·0	52·7	59·6	46·0	28th	64·2	6th	·433	91·8	66·8	4th
March	29.869	60·0	51·2	60·3	42·8	4th	72·0	25th	·424	89·4	65·4	26th
April	29·915	63·0	53·6	62·8	48·4	11th	68·0	24th	·479	87·4	49·0	18th
May	29·989	67·0	60·2	69·7	56·2	2nd	74·6	21st	·579	80·5	65·8	13th
June	29·980	74·0	67·1	77·1	63·2	2nd	82·0	21st	·782	92·0	77·8	11th
July	29·983	79·0	73·2	82·6	68·4	3rd	87·6	14th	·689	66·6	55·0	15th
August	29·986	79·0	72·4	81·3	69·4	10th	87·6	1st	·664	68·6	57·4	11th
September	29·962	78·0	70·2	79·3	65·0	26th	88·0	2nd	·628	67·0	49·0	3rd
October	30·024	72·0	65·3	71·6	59·2	27th	79·0	1st	·532	67·8	59·6	26th
November	30·044	66·0	60·0	66·8	55·4	27th	72·4	14th	·441	71·0	56·0	12th
December	30·017	60·0	53·8	59·9	42·8	28th	66·8	15th	·340	70·5	51·0	14th
Mean	29·994	68·0	61·0	69·2	54·6	—	75·8	—	·532	78·0	58·8	—

FORT NAPIER, NATAL. Lat. 29° 3′ S.

January	29·814	70·0	61·8	79·4	56·0	30th	99·0	18th	·552	64·2	30·0	18th
February	29·784	73·0	63·3	86·4	54·8	11th	101·0	26th	·620	68·0	40·0	26th
March	29·841	72·0	60·2	80·4	54·8	6th	92·8	13th	·537	70·3	49·0	22nd
April	29·836	66·0	54·9	81·9	40·7	28th	101·0	3rd	·448	64·0	28·8	3rd
May	29·850	63·0	49·1	80·2	43·0	30th	89·8	18th	·347	61·8	28·0	26th
June	30·016	56·0	45·0	76·1	37·6	19th	86·5	2nd	·339	64·5	27·0	12th
July	29·826	55·0	44·3	75·9	34·0	20th	84·8	30th	·256	49·9	24·0	8th
August	29·927	56·0	47·2	70·6	34·5	1st	90·5	3rd	·329	63·4	29·6	1st
September	29·906	64·0	53·8	80·6	42·0	8th	98·2	17th	·447	49·7	30·0	26th
October	29·865	68·0	57·5	80·7	46·2	1st	99·0	8th	·743	61·2	28·4	4th
November	29·830	68·0	58·1	80·1	47·0	15th	101·8	5th	·528	67·8	29·0	5th
December	29·795	66·0	60·1	82·1	48·5	6th	105·5	12th	·522	60·2	30·0	13th
Mean	29·857	64·7	54·6	79·5	44·9	—	95·8	—	·472	62·0	31·1	—

SIERRA LEONE. Lat. 8° 29′ N.

January	29·943	80·5	73·0	92·5	61·0	30th	95·0	7th	·867	77·0	41·5	27th
February	29·894	80·2	72·5	92·3	62·0	4th	97·0	21st	·855	88·0	50·0	24th
March	29·899	81·4	72·1	88·5	63·0	25th	94·0	12th	·751	77·3	57·0	25th
April	29·905	83·4	78·0	93·4	73·0	7th	96·0	15th	·690	84·0	55·0	11th
May	29·865	82·6	77·0	87·7	71·0	2nd	96·0	1st	·841	71·6	55·0	12th
June	29·860	84·4	75·7	90·4	70·0	3rd	98·0	24th	·847	78·7	46·0	30th
July	29·942	82·9	75·9	95·1	62·0	20th	98·0	12th	·835	75·2	54·0	28th
August	29·922	83·4	77·2	94·9	72·0	25th	98·0	6th	·875	81·1	55·0	24th
September	29·938	80·6	76·0	92·7	62·0	24th	98·0	18th	·933	79·2	67·0	24th
October	29·909	80·5	72·6	91·5	65·0	27th	97·0	21st	·827	90·5	68·0	26th
November	29·912	82·5	76·0	94·0	70·0	3rd	98·0	18th	·935	77·7	52·0	20th
December	29·825	82·6	82·0	96·0	76·0	1st	98·0	10th	·833	81·0	53·0	6th
Mean	29·901	82·0	75·6	92·4	67·2	—	96·9	—	·840	80·1	54·4	—

No. VIII.—*continued.*

at Netley and Foreign Stations in the Year 1883.

Long. 14° 30′ E. Height of Barometer Cistern above Sea, 70 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
6·0	1·88	0·28	18th	15	—	—	—	—	7·0	11·0	—	4·0	4·0	1·0	2·0	2·0	5·0	9·0	4·0	—
5·0	2·83	1·10	22nd	10	—	—	—	—	11·0	6·0	—	3·0	5·0	2·0	5·0	1·0	2·0	1·0	9·0	—
4·0	1·61	0·54	17th	8	—	1·0	1·0	—	16·0	6·0	—	1·0	—	1·0	6·0	1·0	4·0	7·0	11·0	—
3·0	0·31	0·16	10th	6	—	—	—	—	11·0	2·0	—	1·0	7·0	1·5	4·0	—	—	7·0	9·5	—
1·5	—	—	—	—	—	—	—	—	24·0	1·0	—	2·5	8·0	1·5	3·5	0·5	3·0	1·5	10·5	—
1·0	—	—	—	—	—	—	—	—	28·0	—	—	—	6·5	3·0	6·5	0·5	4·0	1·5	8·0	—
0·3	—	—	—	—	—	—	—	—	30·0	—	—	—	7·0	2·0	5·0	—	1·0	1·0	15·0	—
1·0	0·80	0·05	26th	2	—	—	—	—	25·0	2·0	—	3·0	10·0	2·0	3·0	—	2·0	—	11·0	—
3·0	0·49	0·29	14th	4	—	—	—	—	17·0	3·0	—	1·0	3·0	1·0	6·0	—	5·0	2·0	12·0	—
3·5	3·25	1·38	5th	11	—	—	2·0	—	13·0	4·0	—	—	11·0	—	3·0	—	2·0	1·0	14·0	—
4·5	5·89	1·38	30th	11	—	—	1·0	—	9·0	4·0	—	1·0	5·0	—	6·0	1·0	1·0	1·0	15·0	—
5·0	3·29	0·75	2nd	14	—	—	—	—	10·0	6·0	—	—	11·0	1·0	2·0	—	6·0	1·0	10·0	—
3·1	1·63	0·49	—	6·7	—	0·08	0·3	—	16·7	3·7	—	1·3	6·4	1·3	4·3	0·5	2·9	2·7	10·7	—

Long. 30° 2′ E. Height of Barometer Cistern above Sea, 2,200 feet.

6·5	5·31	1·40	24th	17	—	—	12	—	5·5	15·0	—	3·5	2·5	14·5	4·0	4.0	1·0	—	1·0	0·5
5·5	5·41	1·02	5th	12	—	—	9	—	7·0	10·0	—	1·5	2·5	16·0	3·0	4·0	—	1·0	—	—
6·0	10·26	2·92	5th	20	—	—	6	—	8·0	15·5	—	2·0	2·0	13·5	7·0	4·0	0·5	—	—	2
4·0	2·12	1·36	15th	9	—	—	4	—	16·5	8·5	—	2·0	4·0	6·5	11·5	2·0	—	1·0	1·5	1·5
2·4	0·69	0·50	7th	4	—	—	2	—	24·0	2·5	1·0	1·5	0·5	12·5	9·0	3·5	—	—	0·5	3·5
2·1	—	—	—	—	—	—	—	—	22·0	2·5	—	2·0	0·5	9·5	2·5	4·0	—	1·0	1·0	9·5
1·5	0·01	0·01	24th	1	—	—	—	—	27·5	2·0	—	1·5	7·5	8·5	5·5	3·0	1·0	3·0	1·0	—
5·5	1·26	0·55	25th	10	—	—	1	—	8·5	14·0	—	3·5	5·5	12·0	3·5	0·5	0·5	4·0	1·5	—
4·6	0·91	0·22	14th	8	—	—	—	—	14·0	11·0	—	2·0	4·5	18·0	1·5	—	1·0	1·0	2·0	—
5·3	4·48	2·72	24th	11	—	—	7	—	11·0	10·5	—	2·5	18·0	10·0	5·5	1·0	—	1·0	3·0	—
7·0	4·66	0·93	24th	16	—	—	—	—	4·5	17·5	—	—	12·5	8·0	5·0	—	2·0	0·5	2·0	—
5·5	2·99	0·50	26th	18	—	—	—	—	10·0	15·5	—	1·5	11·5	10·0	3·0	0·5	1·0	1·0	2·5	—
4·6	3·0	1·0	—	10·5	—	—	3·5	—	13·2	10·3	0·08	1·9	5·1	11·5	5·0	2·2	0·5	1·1	1·3	1·4

Long. 13° 9′ W. Height of Barometer Cistern above Sea, 224 feet.

2·5	—	—	—	—	—	—	—	—	29·0	—	—	8·0	12·0	2·0	—	1·0	—	1·0	4·0	3·0
3·2	0·66	0·55	21st	2	—	—	—	—	23·5	—	—	4·0	1·0	1·0	1·0	2·0	5·0	12·0	2·0	—
1·9	—	—	—	—	—	—	—	—	29·5	—	—	5·0	1·0	—	1·0	3·0	9·0	9·0	3·0	—
3·1	5·70	5·70	13th	1	—	—	1·0	—	24·0	—	—	7·0	1·0	1·0	1·0	1·0	6·0	9·0	4·0	—
4·5	25·29	5·20	12th	8	—	—	6·0	—	9·0	2·0	—	4·0	—	2·0	1·0	5·0	9·0	8·0	1·0	1·
4·2	47·99	6·07	16th	21	—	—	12·0	—	11·5	1·5	—	7·0	2·0	1·0	2·0	9·0	3·0	2·0	4·0	—
5·9	46·25	8·15	16th	20	—	—	1·0	—	3·0	5·0	—	10·0	—	1·0	—	9·0	5·0	3·0	1·0	2·
3·5	27·84	6·03	3rd	15	—	—	2·0	—	14·0	—	—	7·0	2·0	3·0	3·0	6·0	4·0	3·0	3·0	—
3·3	28·56	6·21	9th	23	—	—	5·0	—	7·0	—	—	7·0	1·0	1·0	1·0	6·0	6·0	5·0	2·0	1·
—	14.74	3·00	3rd	23	—	—	12·0	—	7·0	—	—	4·0	1·0	3·0	1·0	7·0	3·5	3·5	4·0	4·
4·8	5·58	2·67	15th	6	—	—	3·0	—	21·0	—	—	4·0	—	3·0	1·0	9·0	4·0	5·0	2·0	2·0
3·7	1·58	1·09	13th	2	—	—	2·0	—	29·0	—	—	6·0	1·0	5·0	1·0	10·0	4·0	3·0	1·0	—
3·3	17·01	3·73	—	10	—	—	3·6	—	17·2	0·7	—	6·0	1·8	1·9	1·0	5·6	4·8	5·2	2·5	1·0

Appendix

Annual Abstract of Meteorological Observations taken

BARBADOS. Lat. 13° 7′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.			Per Cent.	Min.	
			Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January - -	30·077	80·0	76·2	84·3	72·0	24th	86·0	9th	·773	67·0	57·0	9th
February -	30·052	80·0	75·5	83·8	66·0	20th	85·0	17th	·762	67·0	60·0	17th
March - -	30·054	81·0	76·8	84·5	72·0	14th	86·0	7th	·756	63·6	56·0	8th
April - -	30·040	82·0	75·2	86·4	73·0	6th	88·0	12th	·759	64·6	57·0	18th
May - -	30·015	84·0	77·4	87·4	74·0	2nd	89·0	15th	·769	61·6	51·0	10th
June - -	30·057	83·0	77·1	86·4	73·0	30th	89·0	8th	·893	68·8	55·9	1st
July - -	30·083	82·0	77·9	86·7	74·0	31st	88·5	26th	·822	72·8	64·0	18th
August - -	29·991	82·0	77·3	85·3	73·5	25th	89·0	31st	·835	74·0	60·0	21st
September -	29·977	82·0	77·5	85·0	72·0	11th	87·5	24th	·749	70·0	51·6	17th
October - -	29·994	83·0	76·6	86·7	73·0	10th	89·5	7th	·813	69·7	60·0	25th
November -	29·996	82·0	75·6	85·0	72·0	10th	92·5	14th	·799	67·6	54·0	9th
December -	30·060	81·0	75·7	84·0	70·0	18th	88·0	17th	·740	63·6	54·9	5th
Mean -	30·033	81·8	76·5	85·4	72·0	—	88·1	—	·781	67·3	56·7	[illegible]

UPPER-PARK CAMP, JAMAICA. Lat. 17° 59′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.			Per Cent.	Min.	
			Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January - -	29·963	80·0	63·0	91·0	61·0	2nd	95·0	6th	·686	67·2	52·0	6th
February - -	29·792	80·5	61·7	91·7	57·0	12th	96·0	12th	·707	68·4	53·1	8th
March - -	30·110	80·0	60·0	91·0	58·0	5th	95·0	1st	·700	61·6	56·1	13th
April - -	30·037	81·8	64·4	91·0	61·0	9th	96·0	9th	·671	59·4	42·7	7th
May - -	30·484	82·0	63·6	92·5	60·0	21st	96·0	16th	·840	72·0	56·1	23rd
June - -	29·879	83·1	63·6	92·6	61·0	6th	97·0	24th	·899	72·0	52·0	26th
July - -	30·045	83·9	64·0	92·8	60·0	14th	96·0	6th	·980	74·8	52·1	28th
August - -	29·997	83·8	64·1	94·9	60·0	11th	99·0	17th	·913	68·0	53·5	4th
September -	29·965	82·5	64·0	95·0	61·0	9th	99·0	22nd	·870	72·4	57·1	3rd
October - -	29·900	83·8	63·1	96·1	60·0	23rd	99·0	9th	·885	69·6	48·1	9th
November -	29·967	82·2	60·4	95·8	57·0	24th	99·0	1st	·854	70·8	54·1	8th
December -	29·986	80·8	58·8	93·3	55·0	8th	100·0	26th	·795	67·6	53·1	9th
Mean -	30·010	82·0	62·5	93·1	59·2	—	97·2	—	·816	68·6	52·5	—

NEWCASTLE, JAMAICA. Lat. 18° 6′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.			Per Cent.	Min.	
			Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January - -	30·262	63·0	55·9	78·9	53·0	27th	87·4	6th	·567	71·8	56·6	6th
February - -	30·241	62·0	54·9	78·6	45·8	2nd	82·0	6th	·533	68·7	53·0	6th
March - -	30·223	62·0	54·2	78·0	48·4	5th	84·2	31st	·526	71·0	49·5	30th
April - -	30·205	64·0	55·7	80·6	52·0	20th	86·0	21st	·571	68·2	40·6	16th
May - -	30·198	67·0	57·2	80·8	54·2	20th	86·0	2nd	·648	76·0	67·0	21st
June - -	30·229	68·0	58·1	83·0	56·2	30th	86·8	24th	·666	69·8	61·1	21st
July - -	30·278	69·0	59·0	84·5	56·4	15th	89·2	28th	·699	73·0	61·9	2nd
August - -	30·257	69·0	59·1	83·7	56·6	3rd	87·8	28th	·767	80·0	62·1	1st
September -	30·230	68·0	60·0	82·5	57·0	27th	86·8	28th	·672	72·7	57·5	26th
October - -	30·210	67·0	58·9	80·9	56·8	10th	84·4	20th	·652	71·0	61·5	31st
November -	30·191	65·0	57·4	79·8	52·2	26th	83·2	29th	·608	69·2	58·4	29th
December -	30·244	62·0	56·2	77·0	52·6	25th	80·8	25th	·554	71·0	51·8	25th
Mean -	30·230	65·5	57·2	80·6	53·4	—	85·3	—	·621	71·8	56·7	—

No. VIII.—*continued.*

at Netley and Foreign Stations in the Year 1883.

Long. 59° 40′ W. Height of Barometer Cistern above Sea, 30 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
3·5	6·40	2·85	29th	19	—	—	—	—	26·0	2·5	—	—	31·0	—	—	—	—	—	—	—
3·5	2·43	0·53	9th	21	—	—	—	—	23·0	2·5	—	—	28·0	—	—	—	—	—	—	—
2·9	0·79	0·19	12th	10	—	—	—	—	23·0	0·5	—	—	30·5	0·5	—	—	—	—	—	—
3·2	1·67	0·38	14th	8	—	—	—	—	25·0	0·5	—	—	30·0	—	—	—	—	—	—	—
3·8	2·05	0·50	27th	15	—	—	—	—	19·0	1·5	—	—	30·0	1·0	—	—	—	—	—	—
4·9	5·94	1·32	28th	21	—	—	3·0	—	15·0	10·0	—	—	27·0	0·5	2·5	—	—	—	—	—
3·5	5·04	1·41	30th	21	—	—	—	—	21·5	2·0	—	—	31·0	—	—	—	—	—	—	—
4·1	9·69	2·54	15th	22	—	—	—	—	18·5	11·0	—	1·5	23·0	1·0	5·0	—	—	—	0·5	—
4·1	2·14	1·02	5th	11	—	—	—	—	14·5	2·5	—	1·0	27·0	—	1·0	—	—	—	1·0	—
3·8	3·19	0·92	15th	17	—	—	—	—	21·0	3·0	—	—	26·5	1·0	3·5	—	—	—	—	—
4·2	6·77	1·65	16th	21	—	—	—	—	19·5	4·5	—	—	28·5	1·5	—	—	—	—	—	—
3·4	0·44	0·15	29th	8	—	—	—	—	25·0	2·0	—	—	31·0	—	—	—	—	—	—	—
3·7	3·87	1·12	—	16·1	—	—	0·2	—	20·9	3·5	—	0·2	28·6	0·4	1·0	—	—	—	0·1	—

Long. 76° 56′ W. Height of Barometer Cistern above Sea, 235 feet.

4·2	2·90	1·70	11th	3	—	—	—	—	9·0	0·5	—	1·0	1·5	—	15·5	—	—	0·5	1·0	11·5
4·4	2·26	1·70	6th	8	—	—	—	—	8·5	1·5	—	1·0	2·0	0·5	8·5	0·5	1·5	4·5	—	9·5
3·1	2·30	1·70	26th	4	—	—	—	—	13·5	4·0	—	2·0	0·5	—	10·5	2·5	5·0	0·5	0·5	9·5
5·1	2·84	1·04	25th	9	—	—	—	—	8·0	1·5	—	2·5	1·0	0·5	11·0	7·0	3·0	1·5	2·5	1·0
3·7	5·67	1·50	19th	14	—	—	1·0	—	10·5	5·5	—	2·0	3·5	0·5	7·5	2·5	4·5	4·5	3·5	2·5
4·6	2·00	0·54	1st	6	—	—	3·0	—	14·0	3·0	—	—	—	1·0	12·0	6·0	6·5	4·5	—	—
3·5	0·66	0·48	25th	2	—	—	—	—	22·5	1·0	—	1·0	—	5·0	15·0	6·0	2·5	1·5	—	—
4·8	0·11	1·10	25th	8	—	—	12·0	—	15·0	5·5	—	2·0	1·0	0·5	12·5	6·0	4·5	3·5	1·0	—
4·9	1·97	0·60	11th	5	—	—	8·0	—	12·5	6·0	—	3·0	2·0	2·0	13·0	4·0	2·0	2·0	2·0	—
4·6	5·21	2·30	26th	5	—	—	12·0	—	14·0	6·5	—	1·5	5·5	—	15·0	4·0	2·0	3·0	—	—
4·4	2·51	0·50	9th	10	—	—	—	—	16·0	4·0	—	2·0	1·0	2·0	14·0	4·0	2·0	4·0	1·0	—
4·4	0·04	0·02	1st	4	—	—	—	—	13·0	6·0	—	3·0	2·5	—	5·0	6·0	2·0	3·5	1·5	7·5
4·3	2·37	1·09	—	6·5	—	—	3·0	—	13·0	3·7	—	1·7	1·7	1·0	11·6	4·0	2·9	2·8	1·0	3·4

Long. 76° 42′ W. Height of Barometer Cistern above Sea, 3,800 feet.

5·7	9·98	2·50	12th	15	—	—	—	—	10·0	8·5	—	0·5	9·5	5·5	1·5	1·0	2·5	1·5	1·0	8·0
5·9	2·04	0·60	12th	17	—	—	—	—	5·0	7·0	—	3·0	5·0	2·0	2·0	1·5	1·5	1·0	1·5	10·5
4·8	9·61	3·15	24th	19	—	—	—	—	12·0	6·5	—	2·0	12·0	2·5	1·5	—	1·5	2·5	4·0	5·0
6·0	6·91	1·20	22nd	16	—	—	—	—	7·5	10·5	—	2·5	4·5	3·5	1·5	1·0	2·0	3·0	2·0	10·0
6·0	8·07	1·87	5th	18	—	—	1·0	—	7·5	10·0	—	2·0	12·5	4·5	6·0	1·0	—	—	—	5·0
4·8	5·90	1·12	2nd	10	—	—	4·0	—	11·5	7·0	—	1·5	13·0	8·5	5·5	—	—	—	—	1·5
3·7	1·97	0·43	6th	8	—	—	4·0	—	20·5	3·5	—	—	15·5	7·0	4·0	—	—	—	—	4·5
4·8	7·53	2·04	16th	16	—	—	5·0	—	11·5	7·5	—	1·5	12·0	6·0	7·0	—	—	—	—	4·5
5·8	11·34	3·32	3rd	15	—	—	4·0	—	8·5	11·5	—	—	11·5	3·5	7·0	—	—	—	0·5	7·5
6·5	21·74	3·42	20th	24	—	—	6·0	—	6·0	14·0	—	—	10·0	12·5	5·0	—	—	—	—	3·5
5·2	9·05	2·28	4th	20	—	—	1·0	—	11·0	9·0	—	2·5	10·0	11·0	3·0	—	—	—	1·0	2·5
5·1	5·01	1·15	13th	18	—	—	1·0	—	10·0	7·5	—	6·0	19·0	2·0	—	—	—	—	0·5	3·5
	8·26	1·92	—	16·3	—	—	2·1	—	9·9	8·5	—	1·7	11·2	5·7	3·6	0·3	0·6	0·6	0·8	5·5

Appendix

Annual Abstract of Meteorological Observations taken

NASSAU, BAHAMAS. Lat. 25° 5′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.			Per Cent.	Min.	
			Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January	30·181	74·5	66·9	—	61·0	10th	—	—	·668	76·8	55·0	11th
February	30·212	76·0	69·1	—	62·2	20th	—	—	·642	71·0	51·6	25th
March	30·089	73·4	65·3	—	60·2	22nd	—	—	·550	62·8	43·0	7th
April	30·044	78·0	69·1	—	63·0	19th	—	—	·625	59·7	44·0	27th
May	30·048	78·5	71·4	—	63·0	20th	—	—	·642	59·5	49·0	21st
June	30·120	83·0	74·8	—	70·5	24th	—	—	·796	61·3	45·4	28th
July	30·134	84·0	75·3	—	71·2	1st	—	—	·803	63·7	42·0	15th
August	30·051	84·0	75·4	—	71·2	30th	—	—	·831	66·5	49·5	29th
September	29·975	82·0	74·2	—	70·0	7th	—	—	·812	71·6	52·8	26th
October	30·011	80·6	72·9	—	67·8	11th	—	—	·782	71·2	53·0	11th
November	30·155	77·0	70·0	—	65·0	29th	—	—	·669	72·2	49·4	3rd
December	30·165	74·0	66·6	—	59·0	2nd	—	—	·616	72·0	54·0	2nd
Mean	30·099	78·7	70·9	—	65·3	—	—	—	·703	67·3	49·0	—

BERMUDA. Lat. 32° 17′ N.

January	30·242	64·0	50·2	70·7	40·0	2nd	75·0	3rd	·516	79·5	54·0	24th
February	30·287	65·5	51·2	70·1	41·0	24th	78·0	26th	·525	76·5	60·0	28th
March	30·045	60·0	45·4	70·0	39·0	25th	75·0	23rd	·515	83·8	59·0	7th
April	30·023	67·0	49·9	72·9	30·2	8th	77·0	19th	·660	89·8	64·0	17th
May	29·730	71·9	56·0	76·0	46·2	26th	87·6	30th	·635	80·1	56·2	26th
June	30·152	78·0	Out of order.	83·2	Out of order.	—	89·2	6th	·714	74·6	52·8	20th
July	30·119	80·0		85·0		—	91·0	3rd	·802	82·5	58·0	6th
August	30·137	82·0		87·1		—	90·2	15th	·858	76·8	65·0	14th
September	30·065	81·0		86·8		—	90·2	17th	·757	70·0	58·0	6th
October	29·964	75·0		81·4		—	85·4	2nd	·705	74·6	63·4	18th
November	30·099	71·0		74·8		—	80·2	16th	·574	77·0	56·0	4th
December	30·088	67·0		70·6		—	76·2	11th	·591	80·0	49·0	14th
Mean	30·079	71·8	—	77·3	—	—	82·9	—	·646	78·7	57·9	—

SINGAPORE. Lat. 1° 16′ N.

January	29·047	80·0	67·6	92·7	65·6	22nd	96·2	10th	·883	80·7	65·6	20th
February	29·038	80·0	67·7	92·7	65·6	14th	97·4	22nd	·845	78·8	60·5	26th
March	29·031	81·0	68·8	92·6	66·4	12th	97·6	8th	·903	80·4	61·0	20th
April	28·997	80·0	69·4	92·3	67·4	12th	96·0	20th	·926	82·0	62·0	3rd
May	29·005	81·0	71·3	93·5	67·2	12th	96·2	24th	·940	81·2	62·0	19th
June	29·006	81·0	70·5	92·3	66·4	30th	94·8	25th	·933	81·4	71·4	3rd
July	29·011	80·0	70·5	92·3	65·0	7th	95·2	29th	·918	76·4	60·4	23rd
August	29·009	80·4	70·7	93·6	64·6	23rd	96·0	17th	·939	78·0	54·8	12th
September	29·028	80·0	68·0	91·5	63·6	11th	94·6	6th	·938	80·5	63·4	24th
October	29·025	80·0	67·2	92·0	65·6	15th	94·6	5th	·920	81·0	60·4	11th
November	29·008	79·0	67·7	91·8	66·0	18th	95·2	12th	·909	81·0	57·2	7th
December	29·044	79·0	68·8	91·5	65·0	19th	95·2	20th	·898	77·6	44·6	24th
Mean	29·020	80·1	69·0	92·4	65·7	—	95·7	—	·912	79·9	60·2	—

No. VIII.—*continued.*

at Netley and Foreign Stations in the Year 1883.

Long. 77° 21′ W. Height of Barometer Cistern above Sea, 44 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								Calm.
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	
6·0	0·61	0·20	24th	12	—	—	—	—	4·5	8·5	—	1·0	9·0	6·0	8·0	3·0	2·5	—	1·5	—
4·8	0·81	0·25	4th	10	—	—	—	—	5·5	3·5	—	0·5	8·0	8·0	11·0	—	—	—	0·5	—
6·0	1·95	0·70	25th	8	—	—	1·5	—	5·5	9·5	—	2·5	8·5	2·0	5·5	3·5	4·0	—	0·5	—
4·2	0·54	0·32	24th	2	—	—	—	—	7·0	1·0	—	3·0	9·0	1·0	6·5	5·0	5·0	—	0·5	—
5·6	1·14	0·68	12th	8	—	—	—	—	6·5	7·5	—	1·5	11·5	2·0	4·0	1·0	4·0	—	7·0	—
5·5	1·49	0·48	30th	8	—	—	4·0	—	3·5	7·0	—	—	—	9·0	9·5	6·0	3·5	0·5	1·5	—
5·7	4·61	1·73	19th	13	—	—	3·0	—	1·0	7·0	—	0·5	5·5	12·0	8·0	3·0	2·0	—	—	—
5·6	3·98	0·76	9th	14	—	—	3·0	—	3·5	9·0	—	—	7·5	6·5	7·0	2·5	3·5	1·0	3·0	—
6·6	14·75	4·58	4th	19	—	—	2·0	—	1·0	13·5	1	—	7·0	8·5	4·5	3·5	6·0	—	0·5	—
6·0	8·60	2·05	17th	14	—	—	—	—	6·0	11·5	—	1·0	11·0	9·5	3·5	4·5	1·0	—	0·5	—
5·7	2·53	0·47	28th	15	—	—	—	—	4·0	10·0	—	5·5	16·5	5·0	1·0	1·0	—	—	1·0	—
4·9	0·30	0·09	24th	8	—	—	—	—	4·0	4·0	—	2·5	9·0	12·5	3·0	1·0	1·0	0·5	1·5	—
5·5	3·44	1·02	—	10·9	—	—	1·1	—	4·3	7·6	·08	1·5	8·5	6·8	5·9	2·8	2·7	0·1	1·5	—

Long. 64° 47′ W. Height of Barometer Cistern above Sea, 151 feet.

5·6	2·06	0·58	22nd	13	—	—	—	—	7·0	11·0	—	2·5	9·0	—	1·5	1·5	11·0	3·0	2·5	—
6·0	1·31	0·63	25th	6	—	—	—	—	3·5	10·0	—	1·0	6·0	1·5	2·5	—	7·5	5·5	4·0	—
7·1	6·11	1·03	3rd	17	—	—	—	—	2·0	20·0	—	2·0	6·5	1·0	3·5	1·0	9·5	1·0	6·5	—
6·2	3·72	1·28	25th	11	—	—	—	—	4·5	12·5	—	1·0	6·0	—	4·5	1·5	12·5	0·5	4·0	—
6·3	5·99	0·96	16th	11	—	—	2·0	—	5·5	11·0	—	—	5·5	0·5	8·5	0·5	15·0	—	1·0	—
5·3	3·19	1·70	25th	13	—	—	—	—	5·5	3·5	—	0·5	1·0	0·5	5·5	2·0	14·5	4·0	2·0	—
5·5	5·74	1·30	13th	15	—	—	3·0	—	7·0	6·0	—	1·0	2·0	1·0	2·0	1·0	19·0	3·0	2·0	—
4·5	3·32	0·84	8th	13	—	—	3·0	—	7·0	2·0	—	—	—	1·5	3·0	2·5	12·5	11·5	—	—
5·4	3·22	0·75	30th	13	—	—	3·0	—	7·0	5·5	—	—	2·5	1·0	7·5	3·0	12·5	2·5	1·0	—
5·7	10·41	3·50	26th	21	—	—	4·0	—	4·0	8·0	—	—	9·0	0·5	5·0	1·5	8·5	3·0	3·5	—
5·3	1·71	0·72	1st	12	—	—	—	—	5·5	8·0	—	3·0	9·0	4·0	4·0	3·0	3·0	2·0	2·0	—
5·2	4·46	2·30	2nd	10	—	—	1·0	—	8·0	7·0	—	4·0	8·0	1·0	2·0	1·5	6·5	7·0	1·0	—
5·6	4·27	1·29	—	12·9	—	—	1·3	—	5·5	8·7	—	1·2	5·3	1·0	4·1	1·5	11·0	3·5	2·4	—

Long. 105° 31′ E. Height of Barometer Cistern above Sea, 110 feet.

5·0	3·02	1·03	26th	7	—	—	—	—	—	1·5	—	6·0	0·5	1·0	0·5	0·5	2·0	12·0	8·5	—
5·0	1·82	1·41	2nd	6	—	—	—	—	—	3·0	—	5·0	16·5	1·5	1·5	—	—	1·0	2·5	—
5·0	6·41	2·07	29th	12	—	—	—	—	—	4·5	—	9·5	4·0	5·0	2·0	1·5	—	3·5	5·5	—
5·0	4·38	1·23	29th	12	—	—	6·0	—	—	6·5	—	1·5	0·5	1·0	1·0	4·0	2·0	16·5	3·5	—
4·0	6·36	1·93	17th	13	—	—	3·0	—	—	2·5	—	4·5	—	—	—	6·0	0·5	20·0	—	—
4·5	3·89	1·46	7th	11	—	—	1·0	—	—	2·5	—	1·5	—	—	—	6·5	—	22·0	—	—
4·0	2·76	0·81	6th	8	—	—	1·0	—	—	3·0	—	0·5	—	—	—	3·0	—	27·5	—	—
4·0	2·92	0·65	20th	12	—	—	2·0	—	—	3·5	—	—	—	—	—	1·5	—	29·5	—	—
5·5	10·41	1·65	14th	19	—	—	4·0	—	3·0	8·0	—	1·0	—	—	—	2·0	—	27·0	—	—
5·5	9·55	2·24	29th	20	—	—	—	—	4·0	7·0	—	0·5	—	1·5	—	1·0	—	28·0	—	—
5·1	5·29	1·11	4th	19	—	—	1·0	—	5·0	5·0	—	3·5	—	0·5	—	—	—	26·0	—	—
5·7	8·90	1·48	29th	12	—	—	2·0	—	—	9·0	—	18·0	—	2·5	—	0·5	—	10·0	—	—
4·8	5·47	1·42	—	12·5	—	—	1·6	—	1·0	4·6	—	4·2	1·7	1·0	0·4	2·2	0·3	18·6	1·6	—

Appendix

Annual Abstract of Meteorological Observations taken

HONG KONG, CHINA. Lat. 22° 16′ N.

Month.	Mean Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.		
		Mean, 9 a.m.	Means of.		Abs. Min.		Abs. Max.			Per Cent.	Minimum.	
			Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Per Cent.	Day.
January	30·156	62·0	54·0	64·8	44·5	7th	72·5	13th	·359	71·5	41·0	5th
February	30·118	63·0	54·4	63·8	43·5	3rd	77·0	21st	·401	79·8	56·0	7th
March	30·018	65·0	58·1	66·2	53·0	14th	76·0	19th	·462	83·4	37·5	16th
April	29·900	71·0	67·0	76·6	60·5	8th	91·0	30th	·677	85·0	72·0	30th
May	29·822	79·0	75·0	84·1	69·0	6th	90·5	29th	·844	82·5	65·5	30th
June	29·775	81·0	76·1	86·7	71·0	3rd	93·0	28th	·827	71·2	43·0	6th
July	29·686	82·0	77·4	88·8	73·0	31st	93·5	11th	·898	76·4	60·0	7th
August	29·682	81·0	76·3	87·9	74·0	28th	92·5	10th	·864	79·6	66·4	9th
September	29·816	79·0	74·8	84·9	72·0	30th	88·5	5th	·800	76·0	55·5	25th
October	30·004	77·0	72·1	81·3	68·5	31st	84·5	1st	·660	68·6	51·0	31st
November	30·108	74·0	65·3	74·0	58·5	23rd	81·5	10th	·561	74·5	49·0	1st
December	30·227	75·0	57·7	65·2	47·5	15th	73·0	1st	·387	65·3	34·5	14th
Mean	29·942	73·2	67·3	77·0	61·2	—	84·4	—	·645	76·1	52·6	—

Summary of Results of Meteorological Observations taken

Stations, with their Height above the sea.		Air Pressure.	Air Temperature.							Tension of Vapour.	Relative Humidity.			Mean amount of Cloud.
			Mean, 9 a.m.	Means of		Abs. Min.		Abs. Max.			Per Cent.	Min.		
				Min.	Max.	Temp.	Date.	Temp.	Date.		Mean.	Per Cent.	Date.	
Mediterranean:	ft.													
Gibraltar	53	29·953	63·7	57·8	71·5	39·5	11 Mar.	97·5	15 Aug.	·574	87·4	61·0	16 June	3·9
Scutari	60	29·940	64·5	49·6	67·3	20·0	7 Jan.	98·8	1 Aug.	·387	72·2	38·0	5 Oct.	5·7
Cyprus:														
Nicosia	592	—	—	46·2	74·6	31·8	12 Feb.	112·0	20 June	·389	69·2	26·0	26 Apr.	3·9
Polymedia	400	29·994	63·2	52·4	71·4	36·2	1 Mar.	94·4	7 May	·401	63·8	27·0	8 May	4·5
Troados	5,720	29·991	69·2	55·5	76·9	30·0	28 June	90·0	26 July	·311	42·2	22·6	19 Aug.	1·3
Malta	70	29·994	68·0	61·0	69·2	39·0	25 Jan.	88·0	2 Sept.	·532	78·0	49·0	18 Apr.	3·1
Natal, "Fort Napier"	2,200	29·857	64·7	54·6	79·5	34·0	20 July	105·5	12 Dec.	·472	62·0	24·0	18 July	4·6
Sierra Leone	224	29·901	82·0	75·6	92·4	61·0	30 Jan.	98·0	24 June	·840	80·1	41·5	27 Jan.	3·3
American & West Indies:														
Barbados	30	30·033	81·8	76·5	85·4	66·0	20 Feb	92·5	14 Nov.	·781	67·3	51·0	10 May	3·7
Newcastle, Jamaica	3,800	30·230	65·5	57·2	80·6	45·8	2 Feb.	89·2	28 July	·621	71·8	40·6	16 Apr.	5·3
Upper Park Camp „	235	30·010	82·0	62·5	93·1	55·0	8 Dec.	100·0	26 Dec.	·816	68·6	42·7	7 Apr.	4·3
Nassau, Bahamas	44	30·099	78·7	70·9	—	59·0	2 Dec.	—	—	·703	67·3	42·0	15 July	5·5
Bermuda	151	30·079	71·8	—	77·3	—	—	91·0	3 July	·646	78·7	49·0	14 Dec.	5·6
Singapore	110	29·020	80·1	69·0	92·4	63·6	1 Sept.	97·6	8 Mar.	·912	79·9	44·6	24 Dec.	4·8
Hong Kong	18	29·942	73·2	67·3	77·0	43·5	3 Feb.	93·5	11 July	·645	76·1	34·5	14 Dec.	6·1

No. VIII.—*continued.*

at Netley and Foreign Stations in the Year 1883.

Long. 114° 9′ E. Height of Barometer Cistern above Sea, 18 feet.

	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
Mean Amount of Cloud.	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storm.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	NW.	Calm.
4·1	0·25	0·11	29th	6	—	—	—	—	16·5	10·0	—	1·5	2·0	15·5	1·0	—	—	2·0	4·5	4·5
8·1	0·11	0·05	1st	5	—	—	—	—	2·5	20·0	—	2·0	2·5	12·0	5·0	—	0·5	1·0	0·5	4·5
9·0	9·77	1·73	13th	18	—	—	2·0	—	2·5	27·0	—	—	—	21·0	3·5	—	—	1·0	—	5·5
8·3	5·23	3·57	9th	15	—	—	—	—	2·0	22·5	—	—	—	24·0	0·5	1·0	0·5	2·0	—	2·0
8·1	15·88	6·81	12th	20	—	—	4·0	—	1·0	21·0	—	—	—	12·5	6·0	2·0	5·0	3·5	—	2·0
5·6	11·28	1·93	2nd	11	—	—	1·0	—	6·5	8·5	—	0·5	4·0	7·0	4·0	2·5	2·0	8·0	—	2·0
6·1	16·20	3·34	12th	22	—	—	3·0	—	4·0	3·0	—	1·0	2·0	10·5	6·5	6·0	1·5	0·5	1·5	1·5
6·0	26·28	5·14	2nd	17	—	—	2·0	—	4·0	4·0	—	2·0	2·0	5·5	2·0	4·5	1·5	7·0	3·0	3·5
4·9	32·56	10·50	10th	16	—	—	1·0	—	4·0	4·0	1·0	—	7·0	10·5	2·5	3·0	4·0	0·5	0·5	2·0
4·5	0·51	0·33	23rd	2	—	—	—	—	13·0	5·0	—	2·0	13·5	11·5	—	1·0	—	—	0·5	2·5
5·6	2·28	1·54	22nd	3	—	—	—	—	6·0	6·5	—	5·0	8·0	12·5	—	—	—	—	5·0	4·0
3·6	0·31	0·22	28th	2	—	—	—	—	15·5	3·0	—	4·0	8·5	11·5	—	—	—	1·5	1·5	4·0
6·1	10·03	2·93	—	11·4	—	—	1·08	—	6·4	11·2	·08	1·5	4·1	12·8	2·5	1·6	1·2	2·2	1·4	3·1

at Foreign Stations in the Year 1883.

Rainfall.			Weather.								Wind.										
			Number of days of								No. of Observations under each Point.										
Total.	Max.	Date.	Rain.	Snow.	Hail.	Thunder-storm.	Fog.	Clear sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	NW.	Calm.	Latitude.	Longitude.
																				° ′	° ′
30·12	3·00	19 Dec.	4·3	—	—	0·08	—	13·8	6·7	—	—	2·2	13·0	0·6	—	1·1	5·2	8·3	0·07	36 6 N.	5 20 W.
29·55	1·70	25 Dec.	12·9	1·0	0·4	1·7	1·6	9·4	13·2	0·1	5·6	8·9	3·1	0·4	4·5	4·0	0·9	0·4	2·2	41 0 N.	29 3 E.
20·70[a]	1·51	15 Nov.	9·3	—	—	1·4	0·5	13·6	6·4	—	1·1	3·1	4·7	3·2	1·2	1·2	5·1	6·8	1·5	35 10 N.	33 21 E.
26·78[b]	1·82	26 Dec.	9·1	—	—	2·0	—	11·0	7·4	0·3	1·5	3·9	4·1	3·4	1·5	2·8	5·5	5·6	0·06	34 40 N.	33 0 E.
1·22[c]	0·55	13June	1·7	—	2·0	1·2	—	23·7	1·3	—	3·0	4·1	3·2	3·0	1·5	2·8	3·3	4·8	—	34 57 N.	32 55 E.
20·35	1·38	5 Oct.	6·7	—	—	0·3	—	16·7	3·7	—	1·3	6·4	1·3	4·3	0·5	2·9	2·7	10·7	—	35 53 N.	14 30 E.
36·10	2·92	5 Mar.	10·5	—	0·08	3·5	—	13·2	10·3	0·08	1·9	5·1	11·5	5·0	2·2	0·5	1·1	1·3	1·4	29 3 S.	30 2 E.
204·19	8·15	16 July	10·0	—	—	3·6	—	17·2	0·7	—	6·0	1·8	1·9	1·0	5·6	4·8	5·2	2·5	1·0	8 29 N.	13 9 W.
46·55	2·85	29 Jan.	16·1	—	—	0·2	—	20·9	3·5	—	0·2	28·6	0·4	1·0	—	—	—	0·1	—	13 7 N.	59 40 W.
99·15	3·42	20 Oct.	16·3	—	—	2·1	—	9·9	8·5	—	1·7	11·2	5·7	3·6	0·3	0·6	0·6	0·8	5·5	18 6 N.	76 42 W.
28·47	2·30	26 Oct.	6·5	—	—	3·0	—	13·0	3·7	—	1·7	1·7	1·0	11·6	4·0	2·9	2·8	1·0	3·4	17 59 N.	76 56 W.
41·31	4·58	4 Sept.	10·9	—	—	1·1	—	4·3	7·6	0·08	1·5	8·5	6·8	5·9	2·8	2·7	0·1	1·5	—	25 5 N.	77 21 W.
51·26	3·50	26 Oct.	12·9	—	—	1·3	—	5·5	8·7	—	1·2	5·3	1·0	4·1	1·5	11·0	3·5	2·4	—	32 17 N.	64 47 W.
65·71	2·24	29 Oct.	12·5	—	—	1·6	—	1·0	4·6	—	4·2	1·7	1·0	0·4	2·2	0·3	18·6	1·6	—	1 16 N.	105 31 E.
120·66	10·50	10 Sept.	11·4	—	—	1·08	—	6·4	11·2	0·08	1·5	4·1	12·8	2·5	1·6	1·2	2·2	1·4	3·1	22 16 N.	114 E

[a] For 9 months. [b] For 8 months. [c] For 4 months.

APPENDIX No. IX.

TABLE showing the AVERAGE STRENGTH of the TROOPS at each of the PRINCIPAL STATIONS in the UNITED KINGDOM, with the ADMISSIONS into HOSPITALS for PRIMARY VENEREAL SORES, SECONDARY SYPHILIS, and GONORRHŒA respectively in each year from 1860 to 1883 inclusive.

Stations.	1860.				1861.				1862.				1863.				1864.				1865.			
	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.
Devonport and Plymouth - -	3,825	609	125	684	3,537	703	161	623	3,426	500	152	497	2,782	344	143	354	2,481	274	52	287	2,569	342	70	377
Portsmouth - -	5,710	1,073	260	1,057	5,107	851	188	1,041	4,691	608	222	839	4,630	497	246	669	4,436	538	261	578	4,824	545	175	662
Chatham, Sheerness, and Gravesend -	5,647	601	157	919	4,609	470	263	622	3,634	327	276	511	3,899	366	121	590	3,804	334	163	554	4,188	360	132	584
Woolwich - -	6,877	1,280	470	1,065	5,967	823	299	894	5,887	781	224	878	5,234	500	183	641	4,824	384	122	417	4,795	363	107	394
Aldershot - -	15,164	1,939	485	1,681	12,898	1,894	451	1,362	12,078	1,400	478	1,548	11,746	1,297	487	1,116	10,700	1,129	504	1,301	11,049	1,108	390	1,235
Windsor - -	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Shorncliffe - -	3,631	476	136	386	3,758	459	88	434	3,589	234	86	389	2,905	236	67	328	2,530	208	96	231	2,744	187	103	265
Colchester - -	2,609	440	68	451	2,135	286	62	350	1,479	233	62	247	1,850	241	102	289	2,089	247	72	370	2,366	254	82	398
Winchester - -	1,449	176	47	293	1,186	118	47	198	674	107	19	133	621	63	20	88	647	72	21	117	978	71	20	202
Dover - -	2,405	365	94	306	2,339	352	60	432	2,054	212	69	299	2,188	215	51	325	2,214	199	42	206	2,387	160	46	174
Canterbury - -	1,880	155	47	237	1,593	227	65	254	1,124	119	74	247	1,079	147	68	209	1,178	80	41	204	1,000	77	24	100
Maidstone - -	492	52	13	59	412	14	12	39	271	6	7	17	299	24	4	24	216	8	14	9	344	61	12	68
Cork - -	1,848	222	49	205	1,835	217	52	248	1,408	153	29	131	1,126	108	63	92	1,070	81	38	111	1,423	122	45	126
Curragh - -	5,942	1,017	221	623	5,962	853	329	636	5,007	544	176	547	5,060	615	219	477	4,505	581	205	418	4,411	427	138	352
Total -	57,479	8,405	2,172	7,966	51,338	7,267	2,077	7,133	45,322	5,224	1,874	6,283	48,419	4,653	1,774	5,202	40,694	4,135	1,631	4,803	43,078	4,077	1,344	4,937
Isle of Wight -	1,245	111	32	163	1,164	100	40	135	800	86	17	134	1,037	50	38	125	1,118	83	35	162	1,210	39	23	1 99
London - -	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Warley - -		No returns.			336	30	27	34	823	62	38	116	692	88	36	135	581	30	24	97	619	60	7	119
Hounslow - -	386	46	28	37	367	49	13	30	547	52	13	9	513	45	13	26	536	24	16	12	514	12	9	16
Pembroke Dock -	1,315	92	26	125	1,262	87	30	147	750	36	27	73	819	43	22	75	805	52	29	84	419	35	9	24
Sheffield - -	509	85	9	67	632	61	16	63	573	76	25	70	626	47	29	46	567	31	6	48	703	66	31	89
Manchester - -	1,168	135	17	130	1,118	258	13	210	1,051	185	45	192	1,031	96	70	117	962	100	66	91	940	119	54	142
Preston - -	944	126	15	190	1,068	88	20	82	710	38	31	134	698	39	67	96	855	85	12	196	1,033	88	28	214
Edinburgh - -	1,471	173	37	197	1,496	145	22	176	1,409	98	49	207	1,303	138	35	176	1,128	74	24	110	1,175	132	16	155
Fermoy - -	1,666	172	19	173	1,820	117	18	145	1,204	43	30	83	1,355	87	35	122	1,425	49	29	102	888	39	14	40
Limerick - -	1,257	154	11	229	1,246	150	30	157	1,064	148	27	146	910	146	18	68	783	101	25	71	813	58	21	143
Athlone - -	922	81	19	201	717	100	39	82	810	41	27	90	876	38	18	112	738	107	46	93	439	68	20	87
Dublin - -	5,423	1,009	239	708	4,899	706	235	560	4,645	577	165	715	4,622	741	196	647	4,607	825	211	494	4,397	659	169	626
Belfast - -	812	108	28	154	1,001	158	30	196	640	58	23	101	650	54	37	71	789	86	23	76	941	43	23	164
London & Windsor combined - -	5,782*	766	164	297	5,757	839	214	299	4,755	621	174	367	4,987	745	193	361	5,008	808	183	389	5,391	738	162	387
Total -	22,900	3,058	644	2,671	22,883	2,888	747	2,322	19,781	2,121	691	2,437	20,119	2,357	807	2,177	19,987	2,455	729	2,025	19,482	2,156	586	2,35

Stations.	1866.				1867.				1868.				1869.				1870.				1871.			
	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.
Devonport and Plymouth - -	2,556	209	76	432	2,443	185	57	434	2,418	159	87	359	2,190	162	45	274	2,208	85	29	262	3,200	159	49	614
Portsmouth -	4,510	452	157	747	4,351	504	148	782	4,928	422	133	925	4,668	289	103	586	4,548	232	101	564	5,656	231	88	794
Chatham Sheerness, and Gravesend -	3,095	259	142	497	4,481	317	189	587	4,489	284	127	699	4,024	163	100	457	4,115	192	74	434	4,719	309	79	659
Woolwich - -	4,607	410	106	385	4,892	432	128	563	5,003	233	122	474	5,261	271	112	465	5,569	241	88	547	5,814	336	63	754
Aldershot - -	9,211	742	265	815	7,894	638	255	784	9,879	760	283	992	10,598	668	331	1,103	11,235	757	370	1,063	15,493	1,011	298	1,706
Windsor - -	—	—	—	—	1,074	62	—	60	1,053	143	—	66	1,035	96	20	84	1,070	72	16	53	1,046	81	12	55
Shorncliffe - -	2,404	137	50	267	2,616	111	65	326	2,554	197	112	314	2,087	163	53	271	2,145	80	47	157	2,938	87	44	245
Colchester - -	2,255	389	65	422	2,378	346	80	538	2,059	374	116	440	1,883	160	53	273	1,677	70	28	214	2,331	74	74	249
Winchester - -	928	43	28	137	902	47	47	116	882	92	43	152	794	80	21	104	441	27	9	27	752	22	20	75
Dover - -	2,078	186	29	217	2,014	267	96	275	2,366	262	92	428	2,433	195	100	252	2,477	75	64	223	2,759	70	40	238
Canterbury - -	931	109	45	122	981	116	23	173	1,148	131	44	241	956	43	31	130	732	111	26	129	985	37	20	243
Maidstone - -	375	52	12	55	384	93	13	108	433	53	10	98	443	57	13	117	205	14	10	35	338	15	8	19
Cork - -	1,768	87	37	112	1,570	113	27	119	1,448	88	41	117	1,624	119	34	131	1,885	129	46	149	2,345	129	37	213
Curragh - -	4,758	369	126	365	3,931	409	122	409	3,935	335	109	380	3,412	299	75	219	3,273	183	88	224	5,714	202	100	390
Total - -	39,476	3,414	1,138	4,573	39,911	3,640	1,250	5,274	42,595	3,533	1,319	5,685	42,017	2,765	1,091	4,466	41,580	2,268	996	4,081	54,090	2,763	932	6,254
Isle of Wight -	1,220	14	16	241	1,105	65	43	182	976	101	53	145	998	129	60	185	806	52	11	94	1,147	76	28	147
London - -	—	—	—	—	4,380	715	—	330	4,353	645	—	326	4,155	597	142	271	4,204	689	97	283	4,282	657	125	363
Warley - -	1,020	81	15	211	1,228	91	11	268	824	76	14	149	661	40	26	52	600	33	15	68	1,073	61	22	127
Hounslow - -	524	11	16	39	498	31	16	48	416	44	29	34	483	41	12	41	536	47	17	47	753	34	23	41
Pembroke Dock -	748	23	4	39	968	27	9	93	1,242	44	18	104	1,035	53	3	66	772	42	18	89	1,057	30	24	98
Sheffield - -	595	63	26	75	800	130	23	227	801	86	26	152	644	94	17	98	689	53	12	90	730	92	21	153
Manchester - -	813	75	36	120	1,021	181	28	244	1,142	132	62	129	914	146	49	100	1,084	100	54	144	1,133	79	30	145
Preston - -	847	64	15	109	1,065	93	35	192	883	77	47	161	874	150	45	178	558	75	16	83	916	69	30	130
Edinburgh - -	1,059	61	16	86	1,024	65	22	132	1,118	51	17	91	1,055	63	18	87	1,056	105	35	124	1,106	76	33	98
Fermoy - -	844	30	26	53	1,077	75	14	101	867	41	15	87	872	101	19	70	1,271	110	50	65	1,230	41	9	46
Limerick - -	767	37	16	42	855	100	14	91	899	103	27	103	755	41	9	36	722	98	23	57	742	42	39	76
Athlone - -	576	24	26	31	679	58	12	70	548	21	13	53	553	23	6	62	482	21	9	57	493	23	10	37
Dublin - -	4,986	627	157	566	5,373	695	193	656	4,898	680	201	579	4,294	772	213	549	4,495	576	193	452	4,638	545	184	575
Belfast - -	596	44	17	51	516	46	19	36	519	29	3	123	446	23	3	66	487	21	5	70	657	40	14	101
London & Windsor combined - -	5,240	791	117	322	—	—	110	—	—	—	193	—	—	—	—	—	—	—	—	—	—	—	—	—
Total - -	19,835	1,945	503	1,985	20,589	2,372	549	2,670	19,486	2,130	718	2,236	17,739	2,273	622	1,856	17,852	2,022	555	1,723	19,957	1,865	592	2,137

Stations.	1872.				1873.				1874.				1875.				1876.				1877.			
	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.
Devonport and Plymouth - -	2,748	161	73	421	3,036	112	59	289	2,936	108	67	185	2,575	75	64	157	2,658	71	58	247	2,934	83	71	239
Portsmouth - -	6,065	241	138	724	5,721	250	104	564	6,003	287	97	398	5,555	169	128	384	5,592	151	143	385	4,575	124	94	335
Chatham, Sheerness, and Gravesend -	4,674	228	78	414	4,202	172	86	334	4,257	140	90	259	4,542	75	106	226	4,588	151	117	282	5,080	219	88	429
Woolwich - -	6,257	373	87	869	6,213	370	151	600	6,206	293	155	419	5,605	330	210	392	5,783	241	178	470	6,246	179	213	395
Aldershot - -	12,741	795	324	1,332	11,821	852	291	1,068	12,922	666	307	900	12,934	600	289	814	12,055	563	322	901	14,416	657	282	978
Windsor - -	1,035	99	14	61	1,089	92	36	58	1,037	65	34	42	972	40	67	43	956	39	24	78	1,020	82	24	77
Shorncliffe - -	2,738	91	60	144	2,238	47	44	136	2,438	35	64	109	2,695	48	53	80	2,748	60	47	115	2,932	62	68	117
Colchester - -	2,124	117	59	306	1,873	78	32	161	1,685	34	44	106	2,248	72	53	180	2,631	80	22	190	2,502	79	42	158
Winchester - -	837	48	47	55	679	18	20	46	994	38	10	63	957	26	10	66	983	20	16	85	1,004	18	15	119
Dover - -	2,691	127	23	203	2,365	91	27	149	2,381	87	36	164	2,300	63	43	118	2,478	75	63	112	3,225	62	32	178
Canterbury - -	891	38	16	129	1,015	20	24	106	987	36	36	63	1,138	14	39	76	1,408	38	19	80	1,378	26	15	107
Maidstone - -	331	19	3	51	272	16	3	33	212	14	7	11	138	1	2	5	108	3	4	2	119	4	1	8
Cork - - -	2,595	161	57	218	2,525	153	47	168	2,116	54	28	85	2,689	57	41	101	2,520	54	42	150	2,437	39	19	90
Curragh - -	5,067	254	66	363	4,990	149	45	234	3,962	182	99	164	4,258	147	90	183	4,112	76	66	205	4,554	175	96	321
Total -	50,794	2,752	1,045	5,290	48,039	2,420	969	3,946	48,136	2,039	1,074	2,968	48,606	1,717	1,195	2,825	48,620	1,622	1,121	3,302	52,422	1,809	1,060	3,551
Isle of Wight -	1,190	68	71	102	1,128	42	52	75	1,206	107	63	142	1,222	109	73	68	1,139	61	37	73	1,092	56	43	95
London - -	4,708	937	219	356	4,278	790	200	381	3,996	716	177	412	3,897	730	185	373	3,735	545	170	366	3,979	660	170	598
Warley - -	711	47	26	81	953	21	7	77	941	30	23	73	819	30	11	70	824	42	13	79	1,129	67	11	138
Hounslow - -	667	60	13	50	631	42	6	43	663	45	5	34	660	16	6	29	666	50	8	39	621	30	16	39
Pembroke Dock -	935	25	28	51	1,282	32	54	61	1,359	29	72	69	1,218	38	38	43	972	28	38	47	863	14	8	56
Sheffield - -	837	82	31	154	732	52	32	110	801	39	22	73	779	68	23	71	812	97	21	72	881	56	30	90
Manchester - -	944	92	12	133	1,028	94	21	115	1,058	112	20	96	1,068	95	50	115	1,063	120	45	162	1,198	157	69	214
Preston - -	874	100	27	114	834	103	17	151	672	65	46	85	749	43	71	54	819	63	77	86	848	65	71	98
Edinburgh - -	1,082	46	48	116	1,154	51	28	75	1,253	31	38	56	1,222	33	18	85	1,155	103	18	86	1,122	53	43	74
Fermoy - -	1,128	63	18	79	967	20	8	37	768	8	8	14	1,200	15	17	39	1,182	37	36	76	886	26	23	42
Limerick - -	802	80	16	63	882	69	28	84	829	48	9	22	903	23	13	29	802	38	14	41	845	63	11	79
Athlone - -	720	10	7	29	637	9	6	13	592	5	4	14	818	8	22	13	603	5	33	30	709	25	24	41
Dublin - -	4,914	813	161	737	4,608	629	160	569	3,946	375	138	289	4,267	311	276	370	4,062	310	224	459	4,131	425	156	574
Belfast -	438	34	12	48	687	71	13	97	795	51	19	71	751	33	19	46	956	55	11	61	772	33	18	96
Total - -	19,950	2,457	684	2,113	19,801	2,025	632	1,888	18,879	1,661	644	1,450	19,573	1,552	817	1,405	18,790	1,554	745	1,677	19,076	1,730	698	2,234

Stations.	1878.				1879.				1880.				1881.				1882.				1883.			
	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorhœa.	Strength.	Primary Venereal Sores.	Secondary Syphilis.	Gonorrhœa.
Devonport and Plymouth	3,227	111	53	322	2,210	74	39	195	2,632	182	71	412	2,176	111	69	258	2,414	179	27	427	2,560	310	54	452
Portsmouth	5,733	84	119	372	4,127	110	72	290	4,435	338	110	537	3,863	220	96	490	4,015	247	88	485	4,219	385	69	417
Chatham, Sheerness, and Gravesend	5,734	280	130	586	4,135	209	104	326	4,031	250	86	397	3,784	239	44	368	4,103	290	60	416	3,002	253	49	309
Woolwich	6,435	244	318	506	5,320	234	310	274	5,308	390	472	423	4,032	256	346	268	4,445	284	94	271	4,398	374	53	313
Aldershot	13,775	730	253	1,156	11,019	622	210	964	11,068	823	194	1,172	10,730	1,076	180	1,013	10,642	1,228	232	1,319	9,110	1,444	343	1,072
Windsor	1,096	43	44	80	1,023	47	39	72	989	105	66	78	1,025	167	55	74	954	110	68	56	961	78	50	68
Shorncliffe	3,314	136	90	143	2,339	159	72	121	2,499	215	57	140	1,617	55	35	115	1,718	84	47	131	1,649	155	56	96
Colchester	2,863	53	32	262	1,984	73	57	81	2,145	93	53	196	2,269	192	24	301	2,276	140	55	203	2,244	265	57	260
Winchester	1,129	43	21	124	1,049	24	33	66	865	39	11	76	629	33	20	62	713	47	27	62	1,102	63	22	108
Dover	3,244	102	32	203	2,561	93	78	145	2,286	113	38	192	2,042	102	24	142	2,152	61	55	122	2,137	135	48	140
Canterbury	1,460	40	13	83	1,211	41	18	83	1,224	92	18	99	1,169	101	25	171	1,391	75	28	179	1,483	114	27	186
Maidstone	146	1	1	11	156	3	3	3	209	9	3	27	220	10	7	25	199	10	5	8	205	5	6	11
Cork	2,439	88	32	107	2,275	67	36	106	1,955	140	36	168	2,083	110	40	96	2,111	140	54	96	2,078	177	67	135
Curragh	5,218	280	84	397	3,237	249	65	213	4,380	541	116	470	3,919	248	102	438	4,650	380	100	424	3,041	414	60	221
Total	55,813	2,235	1,222	4,352	42,646	2,005	1,136	2,939	44,026	3,280	1,331	4,387	39,558	2,920	1,067	3,821	41,783	3,275	940	4,199	38,069	4,172	961	3,788
Isle of Wight	1,311	66	56	79	887	50	20	45	1,013	70	12	78	835	62	10	95	773	95	21	88	806	92	21	73
London	4,246	1,060	262	640	4,284	743	182	491	4,445	1,001	223	625	4,419	967	248	507	4,419	813	181	411	4,367	1,120	107	499
Warley	722	101	19	116	440	58	20	24	479	32	14	31	297	36	4	43	542	92	19	86	516	88	9	80
Hounslow	774	31	22	48	751	14	14	18	873	102	12	63	818	99	17	59	750	48	12	48	800	61	15	42
Pembroke Dock	963	12	3	44	862	13	6	36	721	46	21	64	882	85	42	76	891	62	19	60	769	72	10	71
Sheffield	840	81	29	137	689	91	44	139	664	102	37	88	680	190	28	138	646	170	24	144	558	101	29	89
Manchester	1,199	246	42	212	825	169	30	100	943	219	66	170	936	213	61	169	992	285	39	244	805	213	47	195
Preston	965	70	55	141	666	38	63	79	716	70	22	159	614	64	13	44	728	50	13	51	455	25	11	49
Edinburgh	1,366	98	50	137	1,188	95	53	131	1,112	83	48	132	1,205	113	37	111	1,059	108	34	117	855	83	23	77
Fermoy	694	18	24	52	811	27	12	68	513	48	11	33	1,137	95	18	91	1,030	71	33	50	978	60	8	59
Limerick	918	78	30	96	755	21	18	46	763	47	16	98	1,062	152	56	86	1,215	99	21	98	1,144	131	39	104
Athlone	760	22	38	54	647	10	9	34	655	32	8	35	832	30	19	54	782	12	23	48	677	9	23	38
Dublin	5,067	779	238	639	4,477	523	190	422	4,357	940	140	605	4,877	1,261	208	753	4,841	1,474	282	1,044	4,721	1,249	368	946
Belfast	924	61	5	113	776	96	21	86	800	218	38	124	1,049	192	43	177	781	102	18	129	823	137	10	112
Total	20,749	2,723	873	2,508	18,058	1,943	691	1,719	18,054	3,010	668	2,305	19,643	3,559	804	2,403	19,449	3,481	739	2,618	18,274	3,441	810	2,443

APPENDIX No. X.

THE PARKES' MEMORIAL PRIZE.

Surgeon-General T. Longmore, C.B., *President of Committee.*
Professor F. S. B. F. de Chaumont, *Treasurer.*
Surgeon-Major G. E. Dobson, *Secretary.*

The following is the subject for the next prize :—

On the Prevention of Disease among Troops during Military Operations in Tropical and Sub-Tropical Climates."

The Prize is One Hundred Pounds in Money and a Gold Medal value Fifteen Guineas.

The Competition is open to all Medical Officers of the Army, Navy, and Indian Services of Executive Rank on full pay, with the exception of the Assistant Professors of the Army Medical School during their term of Office. Essays to be sent to the Secretary of the "Parkes' Memorial Fund," Royal Victoria Hospital, Netley, on or before the 31st day of December 1885. Each Essay to have a Motto, and to be accompanied with a sealed envelope bearing the same Motto and containing the name of the Competitor.

APPENDIX No. XI.

THE ALEXANDER MEMORIAL FUND.

COMMITTEE.

Director-General T. CRAWFORD, M.D., Medical Department, *President*.
Surgeon-General W. A. MACKINNON, C.B.
Surgeon-General T. G. BALFOUR, M.D., F.R.S.
Surgeon-General T. LONGMORE, C.B., Hon. Surgeon to the Queen, Professor of Military Surgery.
Deputy Surgeon-General J. A. BOSTOCK, C.B., Hon. Surgeon to the Queen.
Brigade-Surgeon ALFRED F. S. CLARKE, M.D.
Surgeon-Major F. S. B. F. DE CHAUMONT, M.D., F.R.S., Professor of Military Hygiene.
Inspector-General of Hospitals, R. LAWSON.
Surgeon-General WM. RUTHERFORD, C.B., M.D., Hon. Physician to the Queen.
Surgeon-General WM. MUNRO, C.B., M.D.
Surgeon-General J. IRVINE, M.D.
Brigade-Surgeon FRANCIS COLLINS, M.D.

Surgeon-Major W. JOHNSTON, M.D., *Honorary Secretary*.

PRIZE ESSAY GOLD MEDALLISTS.

1870.	Assistant Surgeon A. B. R. MYERS, Coldstream Guards.
1873.	Surgeon F. H. WELCH, Army Medical Department.
1876.	Surgeon-Major J. H. PORTER, Army Medical Department.
1879.	Surgeon JOHN MARTIN, Army Medical Department.
1882.	Surgeon-Major F. H. WELCH, Army Medical Department.
1885.	Surgeon JOHN MARTIN, Medical Staff.

AT a meeting of the Committee, held on the 4th March 1885, it was unanimously resolved that the prize of 50*l*. and Gold Medal of the value of 10*l*. be awarded to Surgeon John Martin, Medical Staff, for the best essay on "Antiseptic Surgery and its application in Military Hospitals and in the Field."

The Committee hereby intimate that the subject for the next competition is "On the Relations between the Food and Work of the British Soldier, and their proper adjustment in Peace and War; on the occurrence of Scurvy among Troops, and its prevention; and on the use of Preserved and Concentrated Foods. With suggestions for alterations or improvements in the existing rations and times of meals."

Essays to be despatched so as to reach the President of the Committee on or before the 31st December 1887.

Essays are to be legibly and clearly written, superscribed with a brief motto, and accompanied by a sealed envelope, similarly superscribed, containing the name and address of the author.

No essay shall exceed in length 50 pages of ordinary printed octavo, which may be estimated as amounting to 20,000 words (a page of octavo containing about 400 words). This limit to be exclusive of tables, which may be added in the form of appendices.

The competition is limited to Executive Medical Officers of the Army on full pay, but Assistant Professors at Netley are not allowed to compete while so employed.

The relative merits of the essays will be determined by assessors selected by the Committee, and the prize awarded to the writer of the best essay, without reference to the number of competitors, provided the writer has complied with the prescribed conditions.

The authors of unsuccessful essays at the recent, or any of the former competitions, can have them returned on application to the Honorary Secretary, under their respective mottoes, and by giving an address to which they wish the essay sent.

W. Johnston, M.D., Surgeon-Major,
Hon. Sec.

Medical Department,
War Office, 6, Whitehall Yard, S.W.,
6th March 1885.

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